

To: "Thomas, Richard" [Richard.Thomas@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 1/4/2010 8:23:05 PM
Subject: Fw: 2010 Verify VW Labels
2010_Verify_VW_Labels.xls

Jim Snyder
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United States Environmental Protection Agency
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----- Forwarded by Jim Snyder/AA/USEPA/US on 01/04/2010 03:22 PM -----

From: Robert Peavyhouse/AA/USEPA/US
To: Jim Snyder/AA/USEPA/US@EPA
Date: 01/04/2010 02:47 PM
Subject: 2010 Verify VW Labels

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website: <http://www.epa.gov/nvfel/>

Year	Index	Calc	Mfr	Dvsn	Carline	EngDspl	EngAsp	Fuel	Trans
2010	046	5	Audi	Audi	A3	2.0	TC	G	M6
2010	047	5	Audi	Audi	A3	2.0	TC	G	SA6
2010	076	D	Volkswagen	Audi	A3	2.0	TC	D	SA6
2010	043	5	Audi	Audi	A3 QUATTRO	2.0	TC	G	SA6
2010	018	D	Audi	Audi	A4	2.0	TC	G	CVT1
2010	020	D	Audi	Audi	A4 AVANT QUATTRO	2.0	TC	G	SA6
2010	021	D	Audi	Audi	A4 QUATTRO	2.0	TC	G	SA6
2010	024	D	Audi	Audi	A4 QUATTRO	2.0	TC	G	M6
2010	019	D	Audi	Audi	A5 Cabriolet	2.0	TC	G	CVT1
2010	023	D	Audi	Audi	A5 Cabriolet quattro	2.0	TC	G	SA6
2010	022	D	Audi	Audi	A5 QUATTRO	2.0	TC	G	SA6
2010	025	D	Audi	Audi	A5 QUATTRO	2.0	TC	G	M6
2010	060	5	Audi	Audi	A5 QUATTRO	3.2	NA	G	SA6
2010	059	D	Audi	Audi	A6	3.2	NA	G	CVT1
2010	035	5	Audi	Audi	A6 AVANT QUATTRO	3.0	SC	G	SA6
2010	008	D	Audi	Audi	A6 QUATTRO	4.2	NA	G	SA6
2010	034	5	Audi	Audi	A6 QUATTRO	3.0	SC	G	SA6
2010	007	D	Audi	Audi	A8	4.2	NA	G	SA6
2010	006	D	Audi	Audi	A8 L	4.2	NA	G	SA6
2010	048	5	Audi	Audi	Q5	3.2	NA	G	SA6
2010	011	D	Audi	Audi	Q7	4.2	NA	G	SA6
2010	062	D	Volkswagen	Audi	Q7	3.6	NA	G	SA6
2010	063	5	Audi	Audi	Q7	3.0	TC	D	SA6
2010	016	5	Audi	Audi	R8	5.2	NA	G	AM6
2010	017	5	Audi	Audi	R8	5.2	NA	G	M6
2010	032	D	Audi	Audi	R8	4.2	NA	G	SA6
2010	033	D	Audi	Audi	R8	4.2	NA	G	M6
2010	036	5	Audi	Audi	S4	3.0	SC	G	M6
2010	037	5	Audi	Audi	S4	3.0	SC	G	SA7
2010	009	5	Audi	Audi	S5	4.2	NA	G	SA6
2010	010	5	Audi	Audi	S5	4.2	NA	G	M6
2010	038	5	Audi	Audi	S5 Cabriolet	3.0	SC	G	SA7
2010	042	D	Audi	Audi	S6	5.2	NA	G	SA6
2010	044	5	Audi	Audi	TT COUPE QUATTRO	2.0	TC	G	SA6
2010	045	5	Audi	Audi	TT ROADSTER QUATTRO	2.0	TC	G	SA6

Year	Index	Calc	Mfr	Dvsn	Carline	EngDspl	EngAsp	Fuel	Trans
2010	012	5	Audi	Lamborghini	Gallardo Coupe	5.2	NA	G	AM6
2010	014	5	Audi	Lamborghini	Gallardo Coupe	5.2	NA	G	M6
2010	013	5	Audi	Lamborghini	Gallardo Spyder	5.2	NA	G	AM6
2010	015	5	Audi	Lamborghini	Gallardo Spyder	5.2	NA	G	M6

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2010	053	5	Audi	Volkswagen	CC	2.0	TC	G	SA6
2010	058	5	Audi	Volkswagen	CC	2.0	TC	G	M6
2010	071	5	Volkswagen	Volkswagen	CC	3.6	NA	G	SA6
2010	072	5	Volkswagen	Volkswagen	CC 4MOTION	3.6	NA	G	SA6
2010	057	5	Audi	Volkswagen	EOS	2.0	TC	G	M6
2010	068	5	Volkswagen	Volkswagen	EOS	2.0	TC	G	SA6

2010	028	5	Volkswagen	Volkswagen	GOLF	2.5	NA	G	A6
2010	031	5	Volkswagen	Volkswagen	GOLF	2.5	NA	G	M5
2010	075	D	Volkswagen	Volkswagen	GOLF	2.0	TC	D	SA6
2010	079	D	Volkswagen	Volkswagen	GOLF	2.0	TC	D	M6
2010	056	5	Audi	Volkswagen	GTI	2.0	TC	G	M6
2010	070	5	Audi	Volkswagen	GTI	2.0	TC	G	SA6
2010	027	5	Volkswagen	Volkswagen	JETTA	2.5	NA	G	A6
2010	030	5	Volkswagen	Volkswagen	JETTA	2.5	NA	G	M5
2010	055	5	Audi	Volkswagen	JETTA	2.0	TC	G	M6
2010	069	5	Audi	Volkswagen	JETTA	2.0	TC	G	SA6
2010	074	D	Volkswagen	Volkswagen	JETTA	2.0	TC	D	SA6
2010	077	D	Volkswagen	Volkswagen	JETTA	2.0	TC	D	M6
2010	026	5	Volkswagen	Volkswagen	JETTA SPORTWAGEN	2.5	NA	G	A6
2010	029	5	Volkswagen	Volkswagen	JETTA SPORTWAGEN	2.5	NA	G	M5
2010	073	D	Volkswagen	Volkswagen	JETTA SPORTWAGEN	2.0	TC	D	SA6
2010	078	D	Volkswagen	Volkswagen	JETTA SPORTWAGEN	2.0	TC	D	M6
2010	065	D	Volkswagen	Volkswagen	NEW BEETLE	2.5	NA	G	SA6
2010	067	D	Volkswagen	Volkswagen	NEW BEETLE	2.5	NA	G	M5
2010	066	D	Volkswagen	Volkswagen	NEW BEETLE CONVERTIBLE	2.5	NA	G	SA6
2010	052	5	Volkswagen	Volkswagen	PASSAT	2.0	TC	G	SA6
2010	054	5	Volkswagen	Volkswagen	PASSAT WAGON	2.0	TC	G	SA6
2010	050	D	Audi	Volkswagen	TIGUAN	2.0	TC	G	SA6
2010	051	D	Audi	Volkswagen	TIGUAN	2.0	TC	G	M6
2010	049	D	Audi	Volkswagen	TIGUAN 4MOTION	2.0	TC	G	SA6
2010	061	D	Volkswagen	Volkswagen	TOUAREG	3.6	NA	G	SA6
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Year	Index	Calc	Mfr	Dvsn	Carline	EngDspl	EngAsp	Fuel	Trans
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2010	506	D	Chrysler	Volkswagen	Routan	4.0	NA	G	A6

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Sent: Mon 1/4/2010 8:33:31 PM
Subject: Re: Fw: 2010 pollution scores
[pollution score chart summarychart.pdf](#)

I found the attached chart that listed .

<http://www.epa.gov/greenvehicles/Aboutratings.do#aboutairpollution>

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Vehicle Emission Standards and Air Pollution Score							
US EPA Federal Tier 2 Emission Standard Bins and California and Northeast States LEV II Emission Standards							Air Pollution Score
Standard	Vehicles	Emission Limits at Full Useful Life (100,000-120,000 miles)					
		Maximum Allowed Grams per Mile					
		NOx	NMOG	CO	PM	HCHO	
Bin 1	LDV, LLDT, HLDT, MDPV	0.00	0.000	0.0	0.0	0.0	10
ZEV	LDV, LDET	0.00	0.000	0.0	0.0	0.0	
PZEV	LDV, LDT	0.02	0.010	1.0	0.01	0.004	9.5
SULEV II	LDV, LDT	0.02	0.010	1.0	0.01	0.004	9
Bin 2	LDV, LLDT, HLDT, MDPV	0.02	0.010	2.1	0.01	0.004	
Bin 3	LDV, LLDT, HLDT, MDPV	0.03	0.055	2.1	0.01	0.011	8
ULEV II	LDV, LDT	0.07	0.055	2.1	0.01	0.011	7
Bin 4	LDV, LLDT, HLDT, MDPV	0.04	0.070	2.1	0.01	0.011	
Bin 5	LDV, LLDT, HLDT, MDPV	0.07	0.090	4.2	0.01	0.018	6
LEV II	LDV, LDT	0.07	0.090	4.2	0.01	0.018	
Bin 6	LDV, LLDT, HLDT, MDPV	0.10	0.090	4.2	0.01	0.018	5
LEV II option 1	LDV, LDT	0.10	0.090	4.2	0.01	0.018	
SULEV II	MDV4	0.10	0.100	3.2	0.06	0.008	4
Bin 7	LDV, LLDT, HLDT, MDPV	0.15	0.090	4.2	0.02	0.018	
SULEV II	MDV5	0.20	0.117	3.7	0.06		3
Bin 8a	LDV, LLDT, HLDT, MDPV	0.20	0.125	4.2	0.02	0.018	
ULEV II	MDV4	0.20	0.143	6.4	0.06	0.016	2
Bin 8b	HLDT, MDPV	0.20	0.156	4.2	0.02	0.018	
LEV II	MDV4	0.20	0.195	6.4	0.12	0.032	
Bin 9a	LDV, LLDT	0.30	0.090	4.2	0.06	0.018	
Bin 9b	LDT2	0.30	0.130	4.2	0.06	0.018	
Bin 9c	HLDT, MDPV	0.30	0.180	4.2	0.06	0.018	
ULEV II	MDV5	0.40	0.167	7.3	0.06		
Bin 10a	LDV, LLDT	0.60	0.156	4.2	0.08	0.018	1
LEV II	MDV5	0.40	0.230	7.3	0.12		
Bin 11	MDPV	0.90	0.280	7.3	0.12	0.032	0

See Glossary in Summary of Current and Historical Emission Standards for explanation of terms.

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US EPA Federal Tier 2 Emission Standard Bins and California and Northeast States LEV II Emission Standards							Air Pollution Score
Standard	Vehicles	Emission Limits at Full Useful Life (100,000-120,000 miles)					
		Maximum Allowed Grams per Mile					
		NOx	NMOG	CO	PM	HCHO	
Bin 1	LDV, LLDT, HLDT, MDPV	0.00	0.000	0.0	0.0	0.0	10
ZEV	LDV, LDET	0.00	0.000	0.0	0.0	0.0	
PZEV	LDV, LDT	0.02	0.010	1.0	0.01	0.004	9.5
SULEV II	LDV, LDT	0.02	0.010	1.0	0.01	0.004	9
Bin 2	LDV, LLDT, HLDT, MDPV	0.02	0.010	2.1	0.01	0.004	
Bin 3	LDV, LLDT, HLDT, MDPV	0.03	0.055	2.1	0.01	0.011	8
ULEV II	LDV, LDT	0.07	0.055	2.1	0.01	0.011	7
Bin 4	LDV, LLDT, HLDT, MDPV	0.04	0.070	2.1	0.01	0.011	
Bin 5	LDV, LLDT, HLDT, MDPV	0.07	0.090	4.2	0.01	0.018	6
LEV II	LDV, LDT	0.07	0.090	4.2	0.01	0.018	
Bin 6	LDV, LLDT, HLDT, MDPV	0.10	0.090	4.2	0.01	0.018	5
LEV II option 1	LDV, LDT	0.10	0.090	4.2	0.01	0.018	
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Bin 8b	HLDT, MDPV	0.20	0.156	4.2	0.02	0.018	
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Bin 9a	LDV, LLDT	0.30	0.090	4.2	0.06	0.018	
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Bin 9c	HLDT, MDPV	0.30	0.180	4.2	0.06	0.018	
ULEV II	MDV5	0.40	0.167	7.3	0.06		
Bin 10a	LDV, LLDT	0.60	0.156	4.2	0.08	0.018	
LEV II	MDV5	0.40	0.230	7.3	0.12		1
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Cc: "Thomas, Richard" [Richard.Thomas@vw.com]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 1/4/2010 8:38:19 PM
Subject: Re: Fw: 2010 Verify VW Labels
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2010	023	D	Audi	Audi	A5 Cabriolet quattro	2.0	TC	G	SA6
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U.S. EPA - Office of Transportation and Air Quality
phone: (734) 214-4814
fax: (734) 214-4869
email: peavyhouse.robert@epa.gov
website: <http://www.epa.gov/nvfel/>

To: [Ex. 7]@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 1/6/2010 3:29:50 PM
Subject: Re: Green Vehicle Guide Listing of PZEVs

Thanks for the specifics, I look into it.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: [Ex. 7]@vw.com> [Ex. 7]@vw.com>
Date: 01/05/2010 01:34 PM
Subject: Green Vehicle Guide Listing of PZEVs

Hello Jim;

Thanks for the table with the models and label index numbers. I have reviewed it and found that there are a couple of models missing from the Green Vehicle Guide web site, but do appear in the fueleconomy.gov site. They are:

New Beetle 2.5L automatic transmission label index 65
New Beetle Convertible 2.5L automatic transmission label index 66

These two labels were calculated with both BIN 5 and PZEV test group configuration data and therefore PZEV versions should also appear on the Green Vehicle Guide but don't. Perhaps you can investigate why the manual transmission version of the New Beetle appears, while the automatic transmission versions of the New Beetle and New Beetle Convertible do not appear.

The other two models (GTI 2.0L M6 and Jetta 2.0L M6) should now appear on the Green Vehicle Guide after I corrected Audi label index 055 and 056 to change the test group name to the appropriate PZEV test group name for a couple of configurations. Perhaps an update of the green vehicle guide is going to happen soon and these two models will additionally appear as PZEVs.

The only other models in which a PZEV version does not appear is due to the late production and certification of the 2.0L PZEV test group for the Passat, Passat Wagon and CC. The SOP was the first week in November, 2009. I will investigate the status of this new test group and the general label calculation.

Thanks,
[Ex. 7]
VOLKSWAGEN GROUP OF AMERICA, INC.
3800 Hamlin Road

Auburn Hills, MI 48326
Engineering and Environmental Office (EEO)

Ex. 7

Ex. 7 @VW.com

To: David Good/AA/USEPA/US@EPA[]
Cc: Linc Wehrly/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Fri 1/22/2010 10:01:31 PM
Subject: Meeting with VW/Audi

Hi Dave:

Next week, Lothar Rech from Audi will be visiting our offices. He has requested that I contact EPA and try to set up a meeting, primarily as a follow-up to the meeting we had last September 24, 2009. Topics would include the following:

Test groups for conventional and hybrid vehicle.
Hybrid test matrix and open SOC measurement for SC03 and COLD CO tests.
Status EPA "Dear Manufacturer" letter for hybrid test procedures.
Open points from September 2009 meeting.
Soak times and tests series for conformity tests.

Steps necessary to get an EPA certificate for an electric vehicle.

With respect to the open points from the September 24, 2009 meeting, I will provide you with a brief report of my understanding of those points.

We would be available to meet next Wednesday, January 27, 2010 or Thursday, January 28, 2010. Please let me know if either of these dates would be acceptable and your preferred time.

Just FYI - I have checked my notes from the September 24, 2009 meeting and EPA participants included Linc Wehrly, Marty Reineman, Tom Anderson, Joel Ball, Chris Nevers, Steve Healy, and you.

Best regards,

Len

Leonard W. Kata
Manager
Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4204
Cell: (248) 797-3886
FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

To: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Cc: leonard.kata@vw.com[]
From: CN=David Good/OU=AA/O=USEPA/C=US
Sent: Mon 1/25/2010 1:36:57 PM
Subject: Fw: Meeting with VW/Audi

Jim,

Please work with Len Kata and our folks to set up the meeting.

Thanks

----- Forwarded by David Good/AA/USEPA/US on 01/25/2010 08:34 AM -----

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: David Good/AA/USEPA/US@EPA
Cc: Linc Wehrly/AA/USEPA/US@EPA, "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 01/22/2010 05:01 PM
Subject: Meeting with VW/Audi

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Len

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E-Mail: leonard.kata@vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=David Good/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 1/25/2010 9:06:48 PM
Subject: Fw: Meeting with VW/Audi on HEV cert and testing

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Emission Regulations and Certification
Engineering and Environmental Office

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To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=David Good/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
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Subject: Fw: Meeting with VW/Audi on HEV cert and testing

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Best regards,

Len

Leonard W. Kata
Manager
Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4204
Cell: (248) 797-3886

FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 1/26/2010 2:35:26 PM
Subject: Accepted: Fw: Meeting with VW/Audi on HEV cert and testing

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 1/26/2010 8:15:32 PM
Subject: VW Meeting - January 27, 2010
Microsoft PowerPoint - EPA agenda presentation Jan 2010 part1.pdf

Hello Jim:

I have attached a copy of slides for our meeting tomorrow. The slides through 9 cover the first agenda point, Audi Q5 Hybrid, and slides 10 and 11 are placeholders for the second and third agenda items. We will send additional slides in the morning.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Wed 1/27/2010 3:40:05 PM
Subject: RE: VW Meeting - January 27, 2010
Microsoft PowerPoint - EPA agenda presentation Jan 2010 part2.pdf

Hello Jim:

As mentioned yesterday, I am now providing the Part 2 of the presentation for our meeting today.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Ex. 7
Sent: Tuesday, January 26, 2010 3:16 PM
To: 'Jim Snyder/AA/USEPA/US'
Subject: VW Meeting - January 27, 2010

Hello Jim:

I have attached a copy of slides for our meeting tomorrow. The slides through 9 cover the first agenda point, Audi Q5 Hybrid, and slides 10 and 11 are placeholders for the second and third agenda items. We will send additional slides in the morning.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Thomas, Suanne"
Sent: Mon 2/1/2010 7:11:09 PM
Subject: VW: AECD Submission V6 diesel 3.0L Test Group
[ARB 01Feb2010 AECD EPA.pdf](#)
[CBI BADXT03.03UG RFA AECD .PDF](#)
suanne.thomas@vw.com

Dear Jim:

Attached is the information we just discussed regarding the AECD information for our V6 diesel.

We have used a new format for the information with the intent to make it more clear how the strategies work to assist in your review.

Please let me know if you would like an overview of the information via conference call. We are happy to do that, just let me know what time would be convenient for you.

Note: a timeslot in the morning would be preferable for us.

Sincerely,

Suanne Thomas

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4206
Cell: (248) 797-4074
FAX: (248) 754-4207
E-Mail: suanne.thomas@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 2/2/2010 6:42:32 PM
Subject: Meeting with Volkswagen and Audi Representatives

Hello Jim:

I am writing to request another meeting (and providing a bit more notice this time!).

Our colleagues from Audi will be in the U.S. during the first week in March 2010 to participate in a number of meetings. They wish to meet with EPA Staff. Unfortunately, they will be in our area for only one day, Thursday March 5, 2010. Would it be possible to arrange a meeting at EPA Ann Arbor on that day?

The discussion topics include:

Presentation and request for approval of a new tank concept for for SCR systems in various Audi models equipped with the 3.0L TDI diesel engine.
Diesel Exhaust Fluid distribution infrastructure.

We have a window of time available between 9:00am and 2:00pm on March 5, 2010. We would like to request about 2.5 hours, sometime within the window. The group cannot meet beyond 2:00 pm due to flight arrangements.

A quick response would be appreciated so that travel arrangements can be locked in this week. Sorry about all of the conditions.

Best regards,

Len

Leonard W. Kata
Manager
Emission Regulations and Certification
Engineering and Environmental Office

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Phone: (248) 754-4204
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FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 2/2/2010 8:10:38 PM
Subject: RE: Meeting with Volkswagen and Audi Representatives

Hi Jim:

I have the date wrong. The request is for Thursday, March 4, 2010.

Best regards,

Len

Leonard W. Kata
Manager
Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4204
Cell: (248) 797-3886
FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, February 02, 2010 3:03 PM
To: Kata, Leonard
Subject: Re: Meeting with Volkswagen and Audi Representatives

Len , do you mean Thursday the 4th or friday the 5th?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 02/02/2010 01:45 PM
Subject: Meeting with Volkswagen and Audi Representatives

Hello Jim:

I am writing to request another meeting (and providing a bit more notice this time!).

Our colleagues from Audi will be in the U.S. during the first week in March 2010 to participate in a number of meetings. They wish to meet with EPA Staff. Unfortunately, they will be in our area for only one day, Thursday March 5, 2010. Would it be possible to arrange a meeting at EPA Ann Arbor on that day?

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FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

To: [Ex. 7]@vw.com]
Cc: [redacted]
Bcc: [redacted]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 2/2/2010 8:20:54 PM
Subject: RE: Meeting with Volkswagen and Audi Representatives

Okay, I'll set it up.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 02/02/2010 03:10 PM
Subject: RE: Meeting with Volkswagen and Audi Representatives

Hi Jim:

I have the date wrong. The request is for Thursday, March 4, 2010.

Best regards,

[Ex. 7]

[Ex. 7]

Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

[Ex. 7]

E-Mail: [Ex. 7]@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, February 02, 2010 3:03 PM
To: [Ex. 7]
Subject: Re: Meeting with Volkswagen and Audi Representatives

Ex. 7 Do you mean Thursday the 4th or Friday the 5th?

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Engineering and Environmental Office

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3800 Hamlin Road
Auburn Hills, MI 48326

Ex. 7

E-Mail: **Ex. 7** @vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA
Sent: Tue 2/2/2010 10:13:32 PM
Subject: Meeting with Volkswagen/ Audi: new tank concept for for SCR systems

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Diesel Exhaust Fluid distribution infrastructure.

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA[]
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To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 2/2/2010 10:33:07 PM
Subject: Accepted: Meeting with Volkswagen/ Audi: new tank concept for for SCR systems

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Kissling, Karlheinz (N/EA-521)" [Karlheinz.Kissling@AUDI.DE]; Kata, Leonard" [Leonard.Kata@vw.com]
From: "Reineke, Dennis"
Sent: Wed 2/3/2010 9:19:28 PM
Subject: Audi Durability Grouping

Hello Jim,

In response to our recent phone discussion about Durability Grouping the information below describes Audi's request to group vehicles in a durability group that would normally not be eligible to be in a single durability group.

Audi intends to use one catalyst to meet both U.S. and new European (EU5) emission requirements in select models. Currently we are making two requests. The first is for the 2011 MY Audi S5. The second is for the Audi R8 4.2. Listed below are the details of the catalysts Audi would like to group together in the same durability and test groups.

1) The Audi S5 with 4.2 liter V8 engine.

The Audi S5 will use a catalyst with a higher precious metal loading rate. This change will occur as part of the carryover of the 50-State certified Audi S5 models. All vehicles in the durability group/test group will be built with the new catalyst. Engine calibration, catalyst size, catalyst location and catalyst precious metal composition are all unchanged. The only difference compared to previous model years is the increased precious metal loading rate.

Development testing shows a reduction of approximately 10% in emissions and no effect on fuel economy. Based on supplier testing and Audi AG's experience with similar catalyst the deterioration rate for this new catalyst is expect to be equal to or better than the existing catalyst. Audi intends to include this vehicle/catalyst in carryover durability group BADXGPGNN365 / Test Group BADXV04.2365. Durability factors from the 2008-10 MY carryover durability vehicle would be used to support 2011 MY certification. (A new durability vehicle would not be required.)

Durability Group: BADXGPGNN365
Test Group: BADXV04.2365

Audi S5 4.2
MY 08/09/10 MY11
Emission Standard LEV II
Type of Coating REX 1662 REX 2073
Precious metal load rate 80 g/ft3 120 g/ft3
PM (Pt: Pd: Rh) 0: 11: 1
Supplier BASF

2) The Audi R8 4.2

The Audi R8 4.2 will use catalysts with a revised Precious Metal (PM) composition for both the pre-catalyst and main catalyst as well as an increase in the Cells/Inch². The loading rate is unchanged however the surface area in the precat is increased due to the 33% increase in the number of Cells/inch². The change will occur as part of the carryover of the 50-State certified Audi R8 4.2 models. All vehicles in

the durability group/test group will be built with the new catalyst. PM loading rate, catalyst size and catalyst locations are all unchanged. The only differences compared to previous model years are the increased cell count and the PM composition..

Development testing shows a reduction of approximately 10% in emissions and no effect on fuel economy. Based on supplier testing and Audi AG's experience with similar catalyst the deterioration rate for this new catalyst is expect to be equal to or better than the existing catalyst. Audi intends to include this vehicle/catalyst in carryover durability group BADXGPGNN375 / Test Group BADXV04.2375. Durability factors from the 2008-10 MY carryover durability vehicle would be used to support 2011 MY certification. (A new durability vehicle would not be required.)

Durability Group: BADXGPGNN375
Test Group: BADXV04.2375

Audi R8 4.2
MY 08/09/10 MY11
Pre Emission Standard LEV II
Catalyst Type of Coating LEX 1365 M30 REX 2073
Precious metal load rate 150 g/ft3 150 g/ft3
PM (Pt: Pd: Rh) 1: 19: 1 0: 20: 1
Cell Density – cells/inch2 400 600
Foil Thickness 0.050 mm. 0.030 mm.
Supplier BASF

Main Emission Standard LEV II
Catalyst Type of Coating LEX 120 REX 2073
Precious metal load rate 100 g/ft3 100 g/ft3
PM (Pt: Pd: Rh) 1: 19: 1 0: 20: 1
Cell Density – cells/inch2 300 300
Cell Wall Thickness 0.050 mm. 0.050 mm.
Supplier BASF

We believe this approach is allowed under 86.1820-01(e)

Please review and contact me with any questions.

Thank you,

Dennis E. Reineke
Certification Specialist
Engineering and Environmental Office

VOLKSWAGEN Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
USA
Phone: +1-248-754-4215
Fax : +1-248-754-4207
Mail To: Dennis.Reineke@vw.com

To: "Johnson, Stuart" [Stuart.Johnson@vw.com]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
Bcc: []
From: CN=Linc Wehrly/OU=AA/O=USEPA/C=US
Sent: Fri 2/5/2010 3:55:55 PM
Subject: Re: FW:

Stuart,

Sorry I haven't had a chance to return your call. I'm providing some feedback from our engineer who has been in charge of the EPA dioxin test program and the main reviewer of your report. Please let me know if you have any comments or questions. his comments are below:

VW's sample train set up was not ideal and it wasn't clear if they used isotope dilution theory to check for sample loss and in the final concentration determination. Also it is not clear if their results presented in pg/m3 are m3 of exhaust flow or m3 of exhaust sampled. We would like to see pg/m3 of exhaust flow. Also they should present the results in pg/mi.

I would like the above issues addressed before we sign off on the results, but I do think that in the end their results are what we would expect based on our in-house test program and what we have seen coming out of other test programs.

Thanks,
Linc

Linc Wehrly
Manager, Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

From: "Johnson, Stuart" <Stuart.Johnson@vw.com>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 12/21/2009 03:31 PM
Subject: FW:

Hello Linc,

Attached please find the dioxin report we discussed earlier today.
Please let me know if you have any questions.

If we don't talk have a good holiday.

Best Regards,

Stuart
[attachment "20091221123434762.pdf" deleted by Linc Wehrly/AA/USEPA/US]

To: Linc Wehrly/AA/USEPA/US@EPA[]
From: "Johnson, Stuart"
Sent: Fri 2/5/2010 8:56:24 PM
Subject: RE: FW:

Hello Linc,

Thanks for the note. I forwarded your questions to Germany so hopefully I can get an answer for you next week.

Best Regards,

Stuart

From: Wehrly.Linc@epamail.epa.gov [mailto:Wehrly.Linc@epamail.epa.gov]
Sent: Friday, February 05, 2010 10:56 AM
To: Johnson, Stuart
Cc: Kohnen, Christoph (VWGoA)
Subject: Re: FW:

Stuart,

Sorry I haven't had a chance to return your call. I'm providing some feedback from our engineer who has been in charge of the EPA dioxin test program and the main reviewer of your report. Please let me know if you have any comments or questions. his comments are below:

VW's sample train set up was not ideal and it wasn't clear if they used isotope dilution theory to check for sample loss and in the final concentration determination. Also it is not clear if their results presented in pg/m3 are m3 of exhaust flow or m3 of exhaust sampled. We would like to see pg/m3 of exhaust flow. Also they should present the results in pg/mi.

I would like the above issues addressed before we sign off on the results, but I do think that in the end their results are what we would expect based on our in-house test program and what we have seen coming out of other test programs.

Thanks,
Linc

Linc Wehrly
Manager, Light-Duty Vehicle Group

Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

From: "Johnson, Stuart" <Stuart.Johnson@vw.com>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 12/21/2009 03:31 PM
Subject: FW:

Hello Linc,

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Please let me know if you have any questions.

If we don't talk have a good holiday.

Best Regards,

Stuart

[attachment "20091221123434762.pdf" deleted by Linc Wehrly/AA/USEPA/US]

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: Bruce Garrison/AA/USEPA/US@EPA;"Johnson, Stuart" [Stuart.Johnson@vw.com];
Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Popa, Edward"
Sent: Mon 2/8/2010 9:07:07 PM
Subject: In-use vehicles scheduled for Feb. 09 2010
[In-Use Parameters Form.xls](#)
[Q7 4.2Lcanisterloading.ppt](#)
[Fuel Drain Q7-V8FSI.PPT](#)

Hello Lynn,

Please find below and attached the test information and parameters for the EPA In-Use Surveillance Test Program -Eng. Fam. 7ADXT04.2358 and for the vehicle M158RXX-0134X (2007 Audi/Q7):

Lab: NVFEL Ann Arbor,
Michigan
Engine Family: 7ADXT04.2358
Estimated Start Date: Week-ending June 19, 2009
Recall/Testing Representative: Lynn Sohacki
Telephone Number: (734) 214-4851
E-mail address: Sohacki.Lynn@epa.gov
Class Numbers: M158/M159 (low-mileage /
high-mileage)

- General Test Group Information:

Engine Fam.: 7ADXT04.2358
Concept: 4.2
Em. Standard: LEV II - BIN 5
Sales Area: 50 States / Canada
Engine HP: 350 hp
Engine Code: BAR
Models in TG: Audi Q7, Touareg
EVAP Fam.: 7ADXR0170358, 7ADXR0230276
EVAP Standard: LEV II - Tier 2
of sold vehicles in TG: 9,727

If you have any questions or need extra information for the procured vehicle please don't hesitate to contact me.

Thank you and best regards,
Edy

Edward-Fabian Popa
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.
Engineering and Environmental Office
3800 Hamlin Road
Auburn Hills, MI 48326, U.S.A.
Tel. +1 248 754 4211

Mobile: +1 248 881 4095
Fax: +1 248 754 4207
mailto:edward.popa@audi.com
http://www.vw.com
http://www.audiusa.com

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Friday, February 05, 2010 3:44 PM

To: Popa, Edward

Subject: In-use vehicles scheduled for next week

Hi, Edy.

Listed below is the information for the vehicles that we have scheduled for next week.

M158RXX-0134X (2007 Audi/Q7) - Ex. 6 0900 vehicle
pick up on 2/9/10 (Tuesday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed
in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include
explicit directions and, if necessary, pictures for:

*disabling traction control, stability control and any load
leveling the vehicle may have*
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to
our contractor, EG&G, and lab personnel. Paper copies or e-mails sent
directly to EG&G or lab personnel may result in incorrect information
being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851

(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? ☒ (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: _____ **Date:** _____

EG&G Representative: _____ **Date:** _____

EPA Representative: _____ **Date:** _____

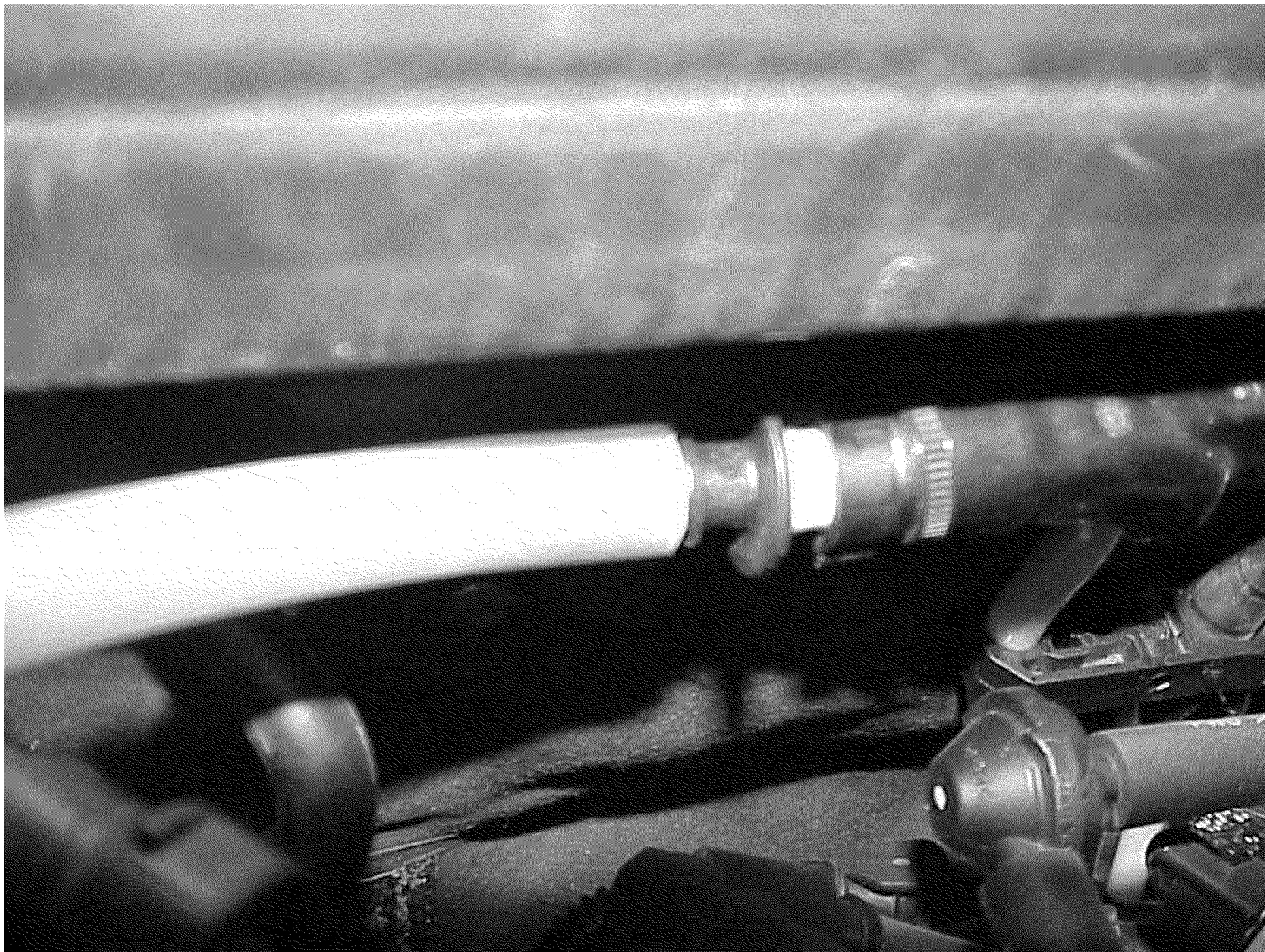
Disconnect to load canister here



Install load hose here



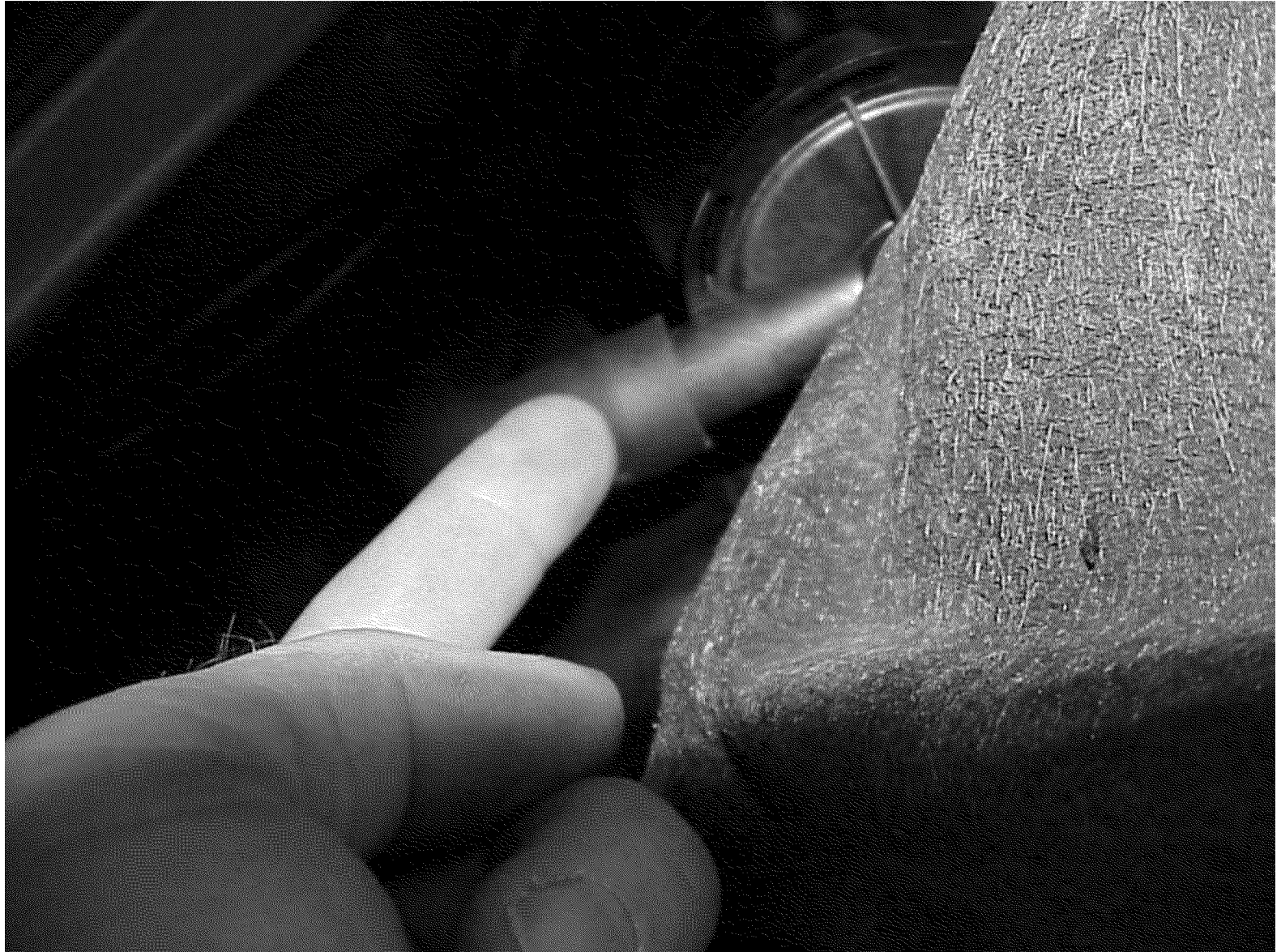
Load hose to station



Overflow open wheel well cover



Disconnect LDP hose



Connect hose for overflow to station for 2g breakthrough



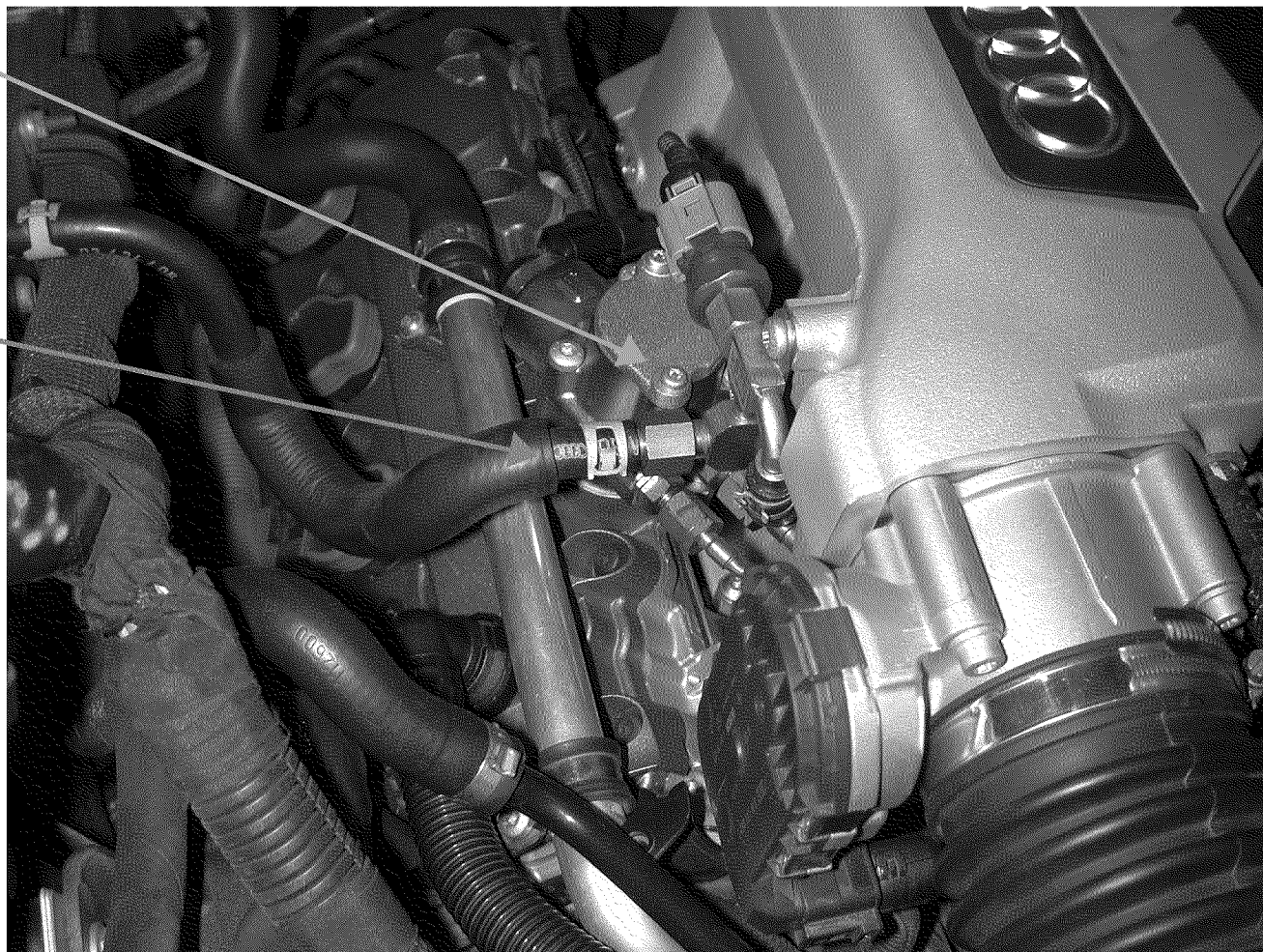
Fuel drain on V8FSI

- ▶ (1) pinch off hose to the high pressure fuel pump (system pressure apx. 6 bar)
- ▶ (2) start and run engine until it stops
- ▶ (3) conect T-piece
- ▶ (4) start and run engine until it stops

Fuel drain on V8FSI

fuel high pressure pump

hose to high pressure pump

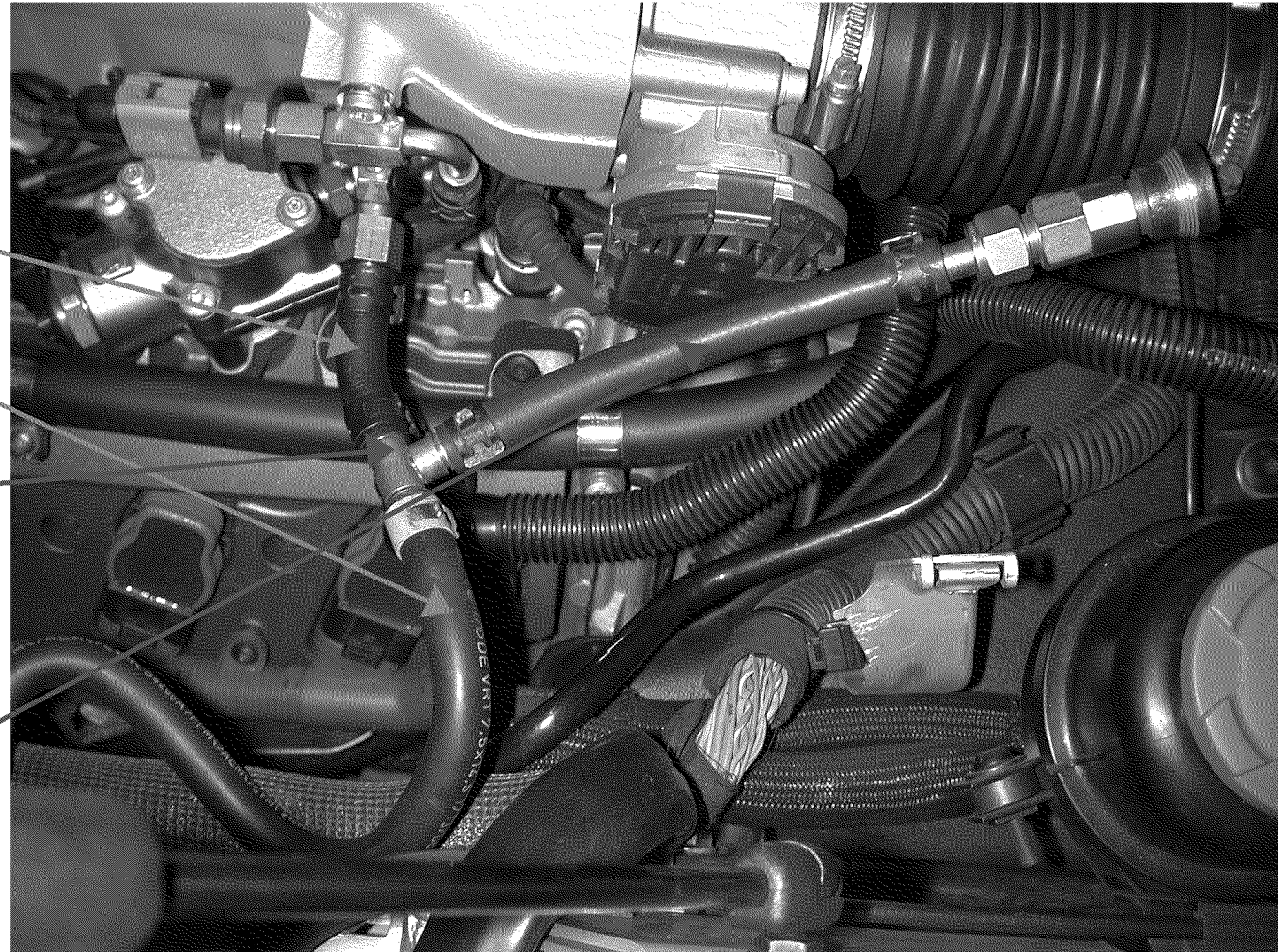


Fuel drain on V8FSI

conection to
high pressure pump

T-piece

Fuel drain hose



To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Johnson, Stuart" [Stuart.Johnson@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Popa, Edward"
Sent: Mon 2/15/2010 11:05:15 PM
Subject: In-use vehicles scheduled for next week
[In-Use Parameters Form N116RXX-0088.xls](#)
[In-Use Parameters Form N116RXX-0174.xls](#)

Hello Lynn,

Please find below and attached the test information and parameters for the upcoming EPA In-Use Surveillance Test Program -Eng. Fam. 8ADXV03.1374 and for the vehicles N116RXX-0088 and N116RXX-0174 (2008 Audi/A6):

Lab: NVFEL Ann Arbor,
Michigan
Engine Family: 8ADXV03.1374
Estimated Start Date: Week-ending February 19, 2010
Recall/Testing Representative: Lynn Sohacki
Telephone Number: (734) 214-4851
E-mail address: Sohacki.Lynn@epa.gov
Class Numbers: N116 (low-mileage /
high-mileage)

- General Test Group Information:

Engine Fam.: 8ADXV03.1374
Concept: 3.1
Em. Standard: LEV II - BIN 5
Sales Area: 50 States / Canada
Engine HP: 255 hp
Engine Code: BKH
Models in TG: Audi A6 quattro / Audi A6 / Audi A4
/ A4 quattro / Audi A4 Cabriolet
EVAP Fam.: 8ADXR0140282
EVAP Standard: LEV II - Tier 2
of sold vehicles in TG: 15,085

If you have any questions or need extra information for the procured vehicle please don't hesitate to contact me.

Thank you and best regards,
Edy

Edward-Fabian Popa
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.
Engineering and Environmental Office
3800 Hamlin Road
Auburn Hills, MI 48326, U.S.A.

Tel. +1 248 754 4211
Mobile: +1 248 881 4095
Fax: +1 248 754 4207
mailto:edward.popa@audi.com
http://www.vw.com
http://www.audiusa.com

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, February 11, 2010 7:46 AM

To: Popa, Edward

Subject: In-use vehicles scheduled for next week

Hi, Edy.

Listed below is the information for the vehicles that we have scheduled for next week.

N116RXX-0088 (2008 Audi/A6) - VIN# **Ex. 6** 2/16/10 0900
(Tuesday) Incoming

N116RXX-0174 (2008 Audi/A6) - VIN# **Ex. 6** 2/17/10
(Wednesday) 0900 pick up @ home

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed
in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include
explicit directions and, if necessary, pictures for:

*disabling traction control, stability control and any load
leveling the vehicle may have*
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to
our contractor, EG&G, and lab personnel. Paper copies or e-mails sent
directly to EG&G or lab personnel may result in incorrect information
being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure:

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure:

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA[]
Cc: []
Bcc: [Ex. 7] [Ex. 7]@vw.com]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 2/16/2010 5:13:44 PM
Subject: Re: Contact info

Yes, its basically the same VW people, at least for emissions purposes.

[Ex. 7] depending on the topic.

[Ex. 7]@vw.com,
[Ex. 7]@vw.com
[Ex. 7]@vw.com

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Martin Reineman/AA/USEPA/US
To: Jim Snyder/AA/USEPA/US@EPA
Date: 02/16/2010 12:01 PM
Subject: Contact info

Do you have e-mail addresses for contacts at Audi and Bentley?

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Thomas, Suanne"
Sent: Tue 2/16/2010 6:05:21 PM
Subject: RE: VW: AECD Submission V6 diesel 3.0L Test Group
suanne.thomas@vw.com

Hi Jim: just checking if you have any comments/feedback for us.

Take care, Suanne

From: Thomas, Suanne
Sent: Monday, February 01, 2010 2:11 PM
To: 'snyder.jim@epa.gov'
Subject: VW: AECD Submission V6 diesel 3.0L Test Group

Dear Jim:

Attached is the information we just discussed regarding the AECD information for our V6 diesel.

We have used a new format for the information with the intent to make it more clear how the strategies work to assist in your review.

Please let me know if you would like an overview of the information via conference call. We are happy to do that, just let me know what time would be convenient for you.

Note: a timeslot in the morning would be preferable for us.

Sincerely,

Suanne Thomas

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4206
Cell: (248) 797-4074
FAX: (248) 754-4207
E-Mail: suanne.thomas@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Wed 2/17/2010 11:24:17 PM
Subject: VW/Audi Meeting

Hello Jim:

I guess that my colleagues from Germany have some additional questions regarding certification of EVs, FCEVs, PHEV etc. They will be in the Detroit area in mid-March. Is it possible to schedule a meeting for the morning of March 18, 2010? This would be in addition to the meeting that we have schedule for March 4, 2010.

Best regards,

Len

Leonard W. Kata
Manager
Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4204
Cell: (248) 797-3886
FAX: (248) 754-4207
E-Mail: leonard.kata@vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Sent: Mon 2/22/2010 8:41:59 PM
Subject: VW/Audi: additional questions on EV,PHEV cert

additional questions from VW regarding certification of EVs, FCEVs, PHEV etc.

I'll try to get some more specifics so we know who is needed to attend.

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Sent: Mon 2/22/2010 8:41:59 PM
Subject: VW/Audi: additional questions on EV,PHEV cert

additional questions from VW regarding certification of EVs, FCEVs, PHEV etc.

I'll try to get some more specifics so we know who is needed to attend.

To: [Ex. 7]@vw.com]
Cc: [redacted]
Bcc: [redacted]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 2/22/2010 8:44:31 PM
Subject: Re: VW/Audi Meeting

[Ex. 7] I scheduled a meeting so we have a room reserved. Can you give me some specifics? Is it more certification type questions, confirmatory data or testing issues?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 02/17/2010 06:24 PM
Subject: VW/Audi Meeting

Hello Jim:

I guess that my colleagues from Germany have some additional questions regarding certification of EVs, FCEVs, PHEV etc. They will be in the Detroit area in mid-March. Is it possible to schedule a meeting for the morning of March 18, 2010? This would be in addition to the meeting that we have schedule for March 4, 2010.

Best regards,

[Ex. 7]

Ex. 7

Emission Regulations and Certification
Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Ex. 7

E-Mail: [Ex. 7]@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Johnson, Stuart" [Stuart.Johnson@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Popa, Edward"
Sent: Wed 2/24/2010 7:01:52 PM
Subject: In-use vehicles scheduled for tomorrow - N116RXX-0051
[In-Use Parameters Form N116RXX-0051.xls](#)
[Anschlüsse 3.1FSI.pptx](#)

<<Anschlüsse 3.1FSI.pptx>> Hi Lynn,

Attached are the form and the instructions for the third vehicle in this program.
If you have any question, please let me know.

Have a nice day,
Edy

Edward-Fabian Popa
Manager In-Use Emission Compliance

Volkswagen Group of America, Inc.
Engineering and Environmental Office
3800 Hamlin Road
Auburn Hills, MI 48326, U.S.A.
Tel. +1 248 754 4211
Mobile: +1 248 881 4095
Fax: +1 248 754 4207
mailto:edward.popa@audi.com
<http://www.vw.com>
<http://www.audiusa.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, February 17, 2010 2:50 PM
To: Popa, Edward
Subject: In-use vehicles scheduled for next week

Hi, Edy.

Listed below is the information for the vehicles that we have scheduled for next week.

N116RXX-0051 (2008 Audi/A6) - VIN# Ex. 6 0800 vehicle pick up on 2/25/10 (Thursday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure:

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p) N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

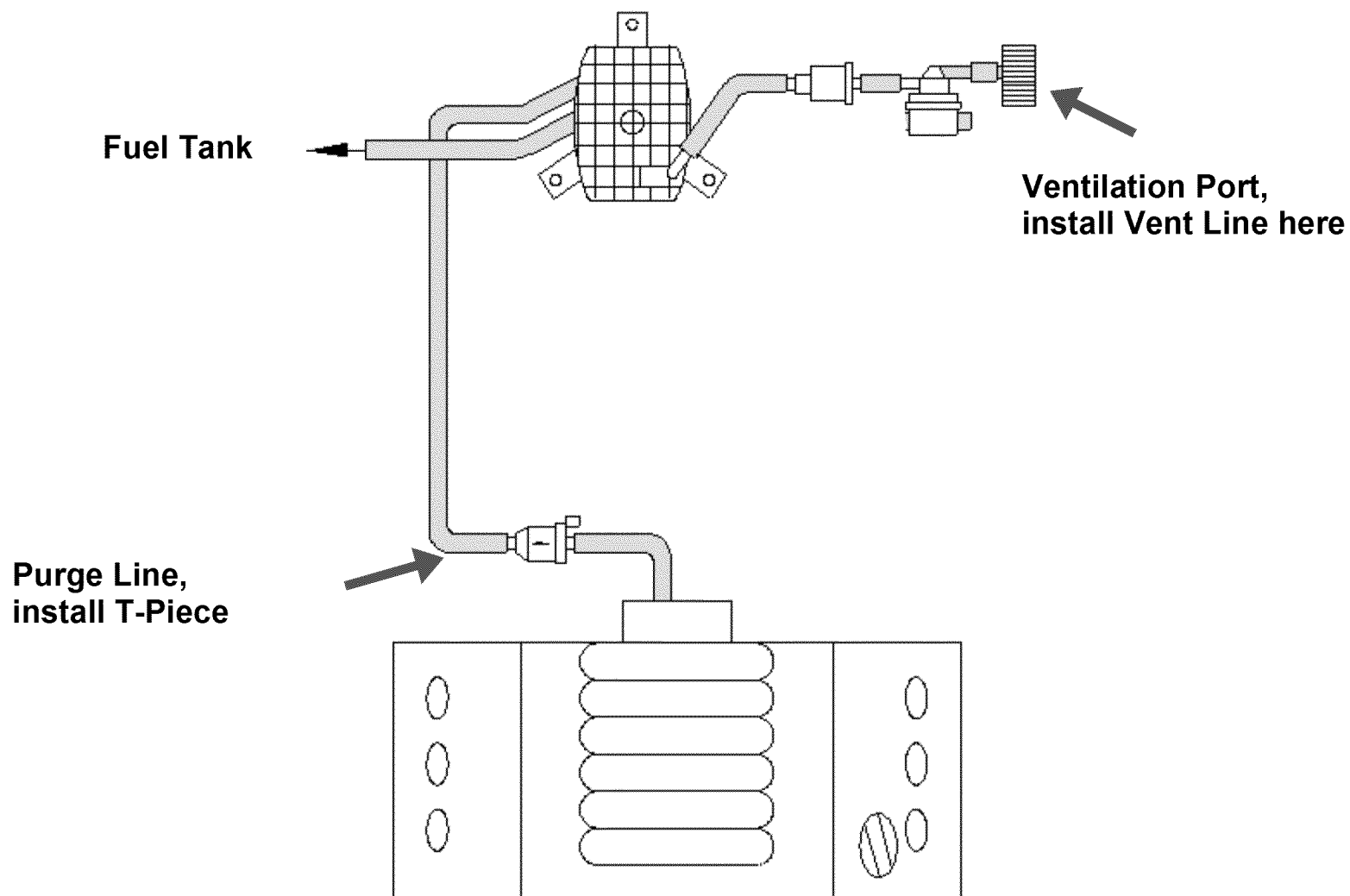
EG&G Representative:

Date:

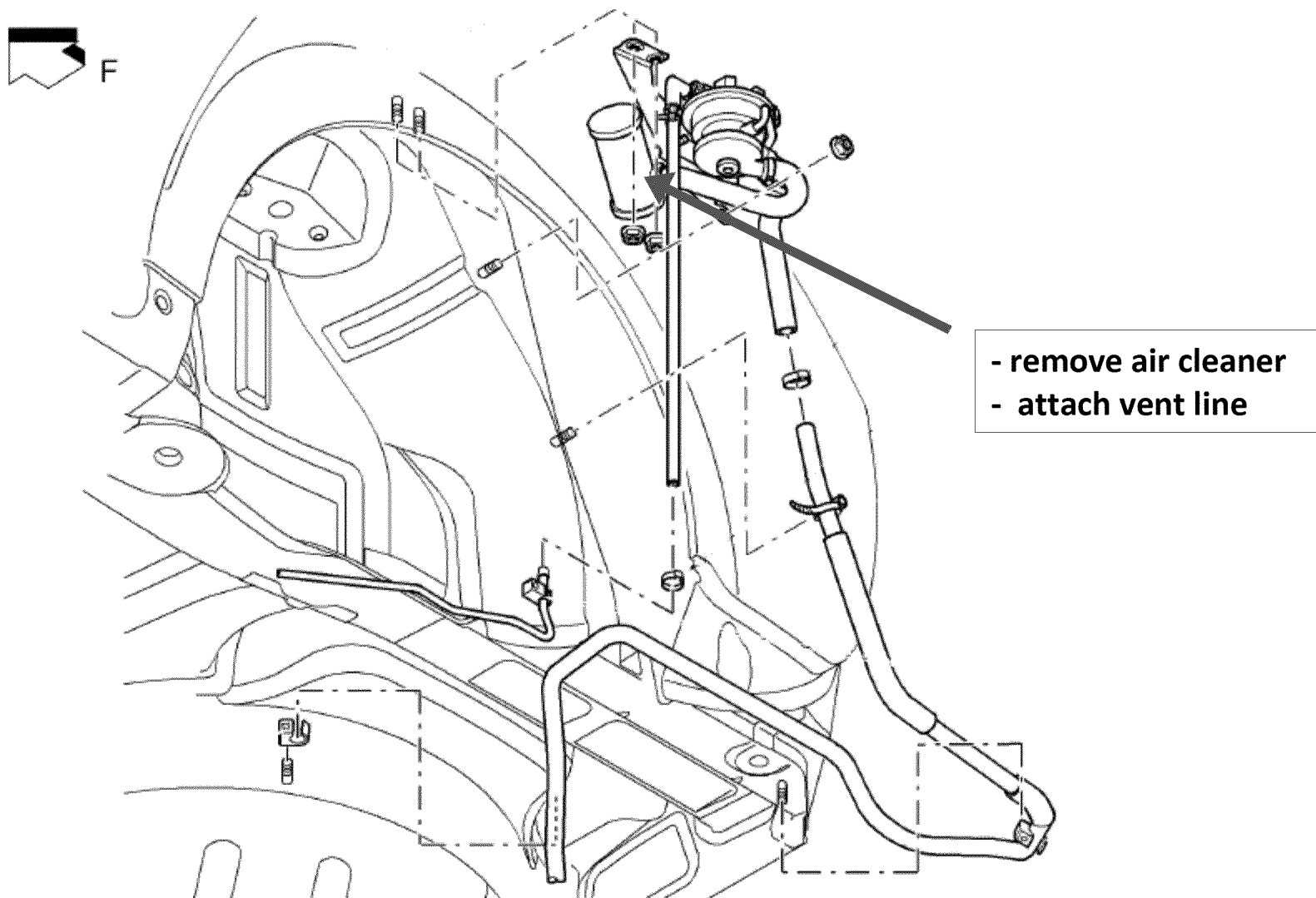
EPA Representative:

Date:

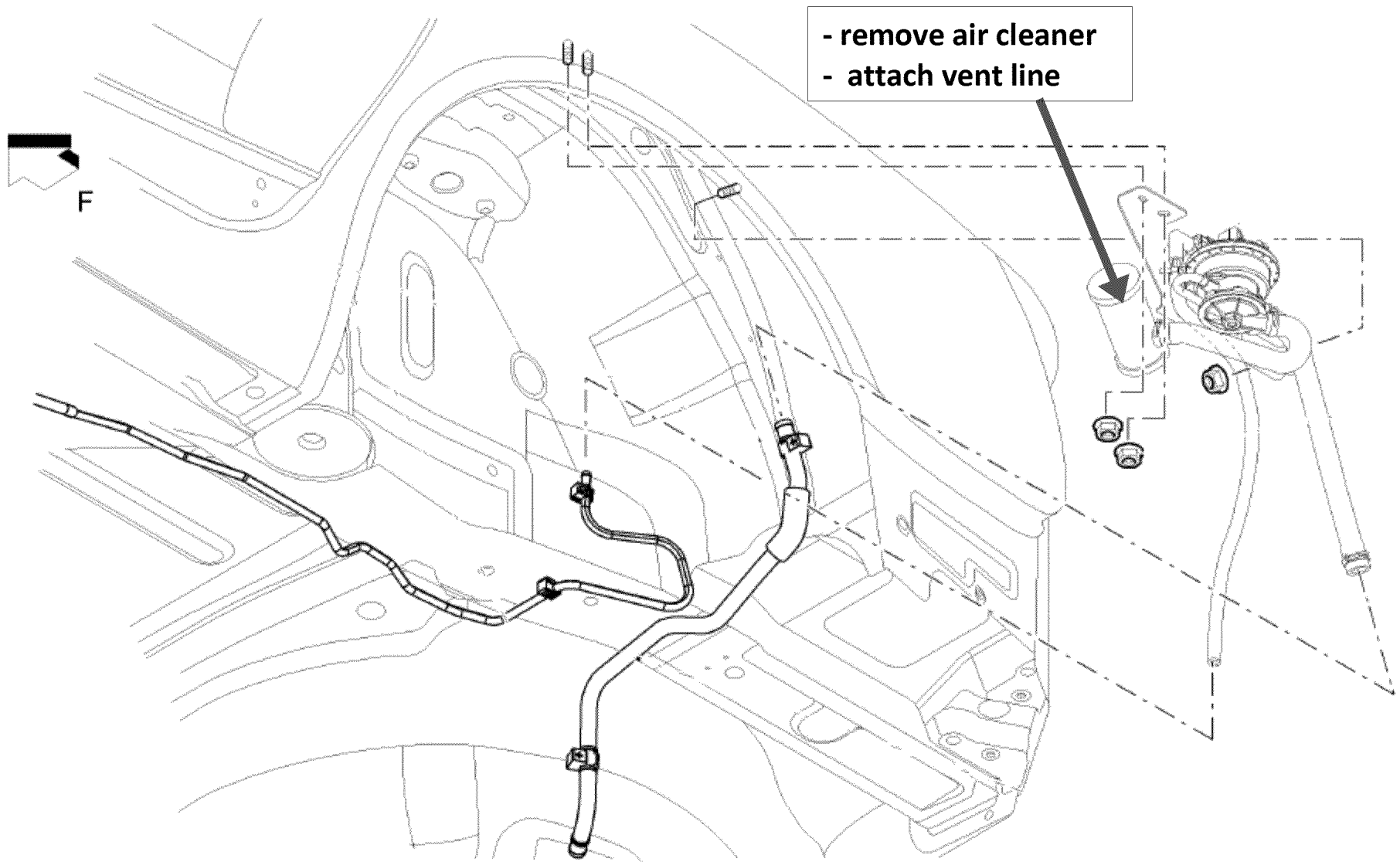
Structure of the Evap. System for Canister Loading/Purging



Audi A4, access to LDP Vent Port – rear left wheelhouse



Audi A6 access to LDP Vent Port – rear left wheelhouse



Engine Compartment



To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 3/2/2010 5:03:05 PM
Subject: Accepted: VW/Audi: additional questions on EV,PHEV cert

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 3/2/2010 5:04:38 PM
Subject: RE: VW/Audi Meeting

Hi Jim:

Thanks for scheduling the meeting. I am working with my colleagues in Germany to get more details. I hope to have additional information this week.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Monday, February 22, 2010 3:45 PM
To: Ex. 7
Subject: Re: VW/Audi Meeting

Hi Ex. 7, I scheduled a meeting so we have a room reserved. Can you give me some specifics? Is it more certification type questions, confirmatory data or testing issues?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Ex. 7
To: Jim Snyder/AA/USEPA/US@EPA
Date: 02/17/2010 06:24 PM
Subject: VW/Audi Meeting

Hello Jim:

I guess that my colleagues from Germany have some additional questions regarding certification of EVs, FCEVs, PHEV etc. They will be in the Detroit area in mid-March. Is it possible to schedule a meeting for the morning of March 18, 2010? This would be in addition to the meeting that we have scheduled for March 4, 2010.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]

Cc: Ex. 7

Ex. 7

From: Ex. 7

Sent: Wed 3/10/2010 1:43:52 PM

Subject: RE: VW/Audi Meeting

Agenda EPA Cert.pdf

Hello Jim:

I have your invitation for the meeting that we requested on my calendar for March 18, 2010 at EPA Ann Arbor (09:30 – 11:00). I have also received the attached draft agenda. If there are any related topics that you wish to discuss, please feel free to add to the agenda.

At this point, I expect 4 or 5 people from the VW Group. I will bring a laptop and projector.

Best regards,

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]

Sent: Monday, February 22, 2010 3:45 PM

To: Ex. 7

Subject: Re: VW/Audi Meeting

Hi Ex. 7 I scheduled a meeting so we have a room reserved. Can you give me some specifics? Is it more certification type questions, confirmatory data or testing issues?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:

Ex. 7

To:

Jim Snyder/AA/USEPA/US@EPA

Date:

02/17/2010 06:24 PM

Subject:

VW/Audi Meeting

To: Robert Peavyhouse/AA/USEPA/US@EPA[]
Cc: Jim Snyder/AA/USEPA/US@EPA;"Thomas, Suanne" [Suanne.Thomas@vw.com]; Thomas, Suanne" [Suanne.Thomas@vw.com]
From: "Hart, Robert (VWoA)"
Sent: Wed 3/10/2010 6:10:46 PM
Subject: Request for Federal OBD Approval for MY 2011 Volkswagen Test Group BVWXV02.5U35
CBI_BVWXV02.5U35_RFA_OBD_R00.PDF

Hello Robert,

I am sending this e-mail as a "heads-up" for a request for Federal OBD approval for model year 2011 Volkswagen test group BVWXV02.5U35 that I just submitted through the Verify System. I have attached a copy of the submitted file for your convenience. Approval is requested by CW 16/10 (week of Monday, Apr. 19, 2010).

If you have any questions regarding this request, please contact me as indicated below.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

OBD Description Submission

As indicated by meeting between EPA / Volkswagen and a letter to EPA Volkswagen is requesting MY11 OBD approval for the following OBD group / test group:

OBD Group	BVW-I5
Test group(s)	BVWXV02.5U35 (Jetta, Jetta Sportwagen, Golf)
Engine Code(s)	CBTA
MY	2011
Standard	Tier2 Bin 5 (Federal only)
Transmission Group	BVW-AIS (Aisin) carry over from MY10
Application submission Summary table	New for MY11 Based on MY 08 ARB approved OBD system (please see submitted file)
Emission Control System	SFI/TWC/HO2S(2)
ARB OBD Approval Test Group in MY 2008	Approval letter MY 2008 is attached for reference 8VWXV02.5253
Federal OBD	OBD System for this test group complies with CFR §86.1806-01, §86.06-04 and §86.06-05 for light duty vehicle with gasoline engine
Concept Differences in comparison to MY 2008 ARB system approval	OBD threshold application based on Tier 2 Bin5 NMHC correlated catalyst monitor EVAP leak detection based on 1.0mm orifice No IUMPR support No Secondary Air System
Deficiency MY08	None
Concern MY08	RO2 sensor, purge valve monitoring, fuel system monitoring, VVT monitoring (E05-188 and E06-019) MAP Sensor Monitor (E-06-078) Concerns are addressed during certification preview meeting and separate submittals.
OBD Approval request	Calendar Week 16 / 2010



Linda S. Adams
Secretary for
Environmental Protection

Air Resources Board

Robert F. Sawyer, Ph.D., Chair
9480 Teiatar Avenue, Suite 4
El Monte, California 91731 www.arb.ca.gov



Arnold Schwarzenegger
Governor

June 1, 2007

Reference No. E-07-109

Mr. Norbert Krause, Manager
Volkswagen of America, Inc.
Mail Code EEO
3800 Hamlin Road
Auburn Hills, MI 48326

Post-it® Fax Note	7671	Date	# of pages
To Bob Hart		From Peter Ho	
Co./Dept. VW		Co. ARB	
Phone #		Phone # (826) 459-4392	
Fax # (248) 754-4207		Fax #	

SUBJECT: Approval of Volkswagen's (VW) On-Board Diagnostics II (OBD II) System Design for 2007 Model Year Test Groups 8VWXV02.5257 and 8VWXV02.5253.

Dear Mr. Krause:

The Air Resources Board's (ARB) Engineering Studies Branch has received the OBD II system descriptions submitted by VW for the 2008 model year test groups listed above. Representations made in the application indicate that the systems are compliant with the OBD II regulation. Therefore, ARB approves the 2008 model year systems with no deficiencies. However, the staff does have concerns regarding rear oxygen sensor monitoring, and manifold absolute pressure (MAP) sensor monitoring which were discussed in previous ARB approval letters (Reference No. E-05-188 and E-06-078). Staff understands VW is working to address the rear oxygen sensor monitoring and MAP sensor monitoring concerns. The staff also has concerns regarding front oxygen sensor monitoring as discussed below.

VW's current front oxygen sensor response monitor compares the actual sensor signal to a modeled "threshold" sensor signal. The monitor evaluates the sensor signal over 12 cycles (i.e., lambda modulation and corresponding switches of the sensor from lean to rich and back to lean). VW representatives have explained that the sensor cycle time is a function of both sensor deterioration and catalyst aging and typical cycle time ranges from 1 to 10 seconds which would yield a worst case monitoring time of 120 seconds. While VW representatives believe that this monitoring time is reasonable and will occur in-use, staff is concerned that, as the oxygen sensor malfunctions and progressively deteriorates, the cycle time could be significantly longer and consequently the time required to collect 12 cycles of the sensor signal would affect monitoring frequency and hinder detection of malfunctions in-use. This concern also applies to other test groups that require a specified number of cycles for the oxygen sensor

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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Mr. Krause
June 1, 2007
Page 2 of 2

monitor (e.g., test group 8ADXV05.2385 requires 40 cycles). Staff believes a secondary measure (e.g., the monitor would detect a malfunction if 12 cycles have not been achieved in 120 seconds of monitoring time) is necessary to account for long cycle times and ensure detection of sensor malfunctions that result in longer cycle times. In order to avoid a deficiency determination on future model year vehicles, VW is required to investigate improvements to this monitoring strategy and propose an implementation schedule for staff approval.

Should you have questions or comments regarding this letter, please have your staff contact Mr. Peter Ho at (626) 459-4392.

Sincerely,

Handwritten signature of Michael J. Regal for SGA.

Steve Albu, Assistant Chief
Mobile Source Control Division

cc: Mr. Peter Ho
Engineering Evaluation Section

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Catalyst System	P0420	measure of OSC compared to OSC of borderline catalyst	<u>measured OSC / OSC of borderline catalyst</u> measured OSC (HC and NOx-correlated)	< 1.00	[-]	time after dew point	> 5.0	[s]	25.0 [s] once / DCY	2 DCY
						delta exhaust mass flow	< 25.00	[kg/h]		
						exhaust gas mass flow, lower range	30.00...120.00	[kg/h]		
						exhaust gas mass flow, upper range	150.00	[kg/h]		
						modeled exhaust gas temp. dynamic	< 50	[K]		
						modeled exhaust gas temp. in catalyst system, lower range	560...860	[°C]		
						modeled exhaust gas temp. in catalyst system, upper range	1000	[°C]		
						minimum modeled exhaust gas temp. in catalyst system	> 400	[°C]		
						for time	> 120.0	[s]		
						filtered minimum modeled exhaust gas temp. in catalyst system	> 450	[°C]		
						engine load	14.30...65.30	[%]		
						evap purge loading	not high			
						engine speed	1200...3320	[rpm]		
						range between lambda set value and lambda value	< 0.05	[-]		
						out of lambda range	< 1	[s]		
						lambda control	closed loop			
						lambda control	not at min or max limit			
						number of checks	3.00	[-]		
						O2S front	ready			
						O2S rear	ready			
						SAS	not active			
						no misfire				
						O2S front response monitoring in current driving cycle	ready			

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.	
Misfire	P0300	crankshaft speed fluctuation (single or multiple)	emission threshold misfire rate (MR)	> 3	[%]	active after engine start	idle - 150 [rpm] + 1 camshaft [rev]	1000 [rev] continuous	2 DCY		
	P0301		catalyst damage misfire rate (MR)	> 2.5...24	[%]	engine speed range	500...6250 [rpm]			200 [rev] continuous	immediately
	P0302				engine torque	>= 0 [Nm]					
	P0304				IAT	> -48 [°C]					
	P0305				ECT @ start	> -48 [°C]					
P0303						fuel cut off	not active				
						rough road	not detected				
EVAP Purge Valve	P0444	open circuit	signal voltage	4.70...5.40	[V]	evap purge valve	commanded off	0.5 [s] continuous	2 DCY		
						engine speed	> 80 [rpm]				
	P0458	short to ground	signal voltage	0.0...3.26	[V]	evap purge valve	commanded off	0.5 [s] continuous	2 DCY		
						engine speed	> 80 [rpm]				
P0459	short to battery plus	signal current	> 2.20	[A]	evap purge valve	commanded on	0.5 [s] continuous	2 DCY			
					engine speed	> 80 [rpm]					

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
EVAP Purge Valve	P0441	functional check stuck open	actual evap pump current difference between reference measurement to idle divided by pump current difference from the last leak detection phase during engine off	> 1.70	[-]	ECT ECT @ start ambient air temperature altitude time since engine start integrated evap purge flow since last purge stop integrated evap purge flow since last monitoring run intake manifold vacuum vehicle speed delta vehicle speed fuel volume flow at least one leak detection monitor during engine off engine engine speed no fuel cut off no gear shift no engine stop O2S front evap purge valve	> 60 [°C] < 60 [°C] < 35; > 4 [°C] ≤ 2700 [m] ≥ 600.0 [s] > 2 [g] > 0 [g] > 100.00 [hPa] < 120; ≥ 0 [km/h] ≤ 30 [km/h] ≤ 5.00 [ml/s] preceding not idle > 20 [rpm] ready commanded off	4.5 [s] once / DCY	2 DCY
	P0441	functional check stuck close	drop of evap pump current within time	< 1	[mA] 12.0 [s]	ECT ECT @ start ambient air temperature altitude time since engine start integrated evap purge flow since last purge stop integrated evap purge flow since last monitoring run intake manifold vacuum vehicle speed delta vehicle speed fuel volume flow at least one leak detection monitor during engine off increase of evap pump current from idle state within time engine engine speed no fuel cut off no gear shift no engine stop O2S front evap purge valve	> 60 [°C] < 60 [°C] < 35; > 4 [°C] ≤ 2700 [m] ≥ 600.0 [s] > 2 [g] > 0 [g] > 100.00 [hPa] < 120; ≥ 0 [km/h] ≤ 30 [km/h] ≤ 5.00 [ml/s] preceding ≥ 0.3 [mA] < 17 [s] not idle > 20 [rpm] ready commanded on	33.5 [s] once / DCY	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
EVAP System Small Leak	P0442	pressure check	modeled pressure from pump current	< 9.00	[hPa]	engine temperature @ engine start difference between ECT and IAT @ engine start ambient air temperature altitude time since engine start in preceding dcy change in battery voltage during monitoring engine off time vehicle speed evap purge adaptation no sudden change in evap pump current (filling event) deviation of filtered evap pump current durring reference measurement within range change in relative evap pump current during monitoring within time (during ECM keep alive-time after ignition off, max. time) airbag (after MIL illumination because of any EVAP leakage the monitor is only activated every)	>= 4 [°C] <= 15 [K] < 35; > 4 [°C] <= 2700 [m] >= 600.0 [s] < 1.00 [V] >= 5.0 [s] 0 [km/h] < 5.00 [-] < 2; > -1 [mA] <= 1 [mA] n.a. n.a. < 900.0 [s] not activated 1 dcys	400.0 [s] once / DCY	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
EVAP Leak Detection Pump	P043E	out of range high during engine off	evap pump current during reference measurement	> 40	[mA]	engine temperature @ engine start difference between ECT and IAT @ engine start ambient air temperature altitude time since engine start in preceding dcy change in battery voltage during monitoring engine off time vehicle speed evap purge adaptation deviation of filtered evap pump current durring reference measurement within range change in relative evap pump current during monitoring within time (during ECM keep alive-time after ignition off, max. time) airbag (after MIL illumination because of any EVAP leakage the monitor is only activated every)	>= 4 [°C] <= 15 [K] < 35; > 4 [°C] <= 2700 [m] >= 600.0 [s] < 1.00 [V] >= 5.0 [s] 0 [km/h] < 5.00 [-] <= 1 [mA] n.a. n.a. < 900.0 [s] not activated 1 dcys	10.0 [s] once / DCY	2 DCY
	P043F	out of range low during engine off	evap pump current during reference measurement	< 15	[mA]	engine temperature @ engine start difference between ECT and IAT @ engine start ambient air temperature altitude time since engine start in preceding dcy change in battery voltage during monitoring engine off time vehicle speed evap purge adaptation deviation of filtered evap pump current durring reference measurement within range change in relative evap pump current during monitoring within time (during ECM keep alive-time after ignition off, max. time) airbag (after MIL illumination because of any EVAP leakage the monitor is only activated every)	>= 4 [°C] <= 15 [K] < 35; > 4 [°C] <= 2700 [m] >= 600.0 [s] < 1.00 [V] >= 5.0 [s] 0 [km/h] < 5.00 [-] <= 1 [mA] n.a. n.a. < 900.0 [s] not activated 1 dcys	10.0 [s] once / DCY	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
EVAP Leak Detection Pump	P2407	signal check during engine off	fluctuation of evap pump current during reference measurement or	> 1	[mA]	engine temperature @ engine start	>= 4 [°C]	800.0 [s] once / DCY	2 DCY
			drop of evap pump current during pump phase for time	> 6	[mA]	difference between ECT and IAT @ engine start ambient air temperature	<= 15 [K] < 35; > 4 [°C]		
				>= 3.0	[s]	altitude time since engine start in preceding dcy change in battery voltage during monitoring engine off time vehicle speed evap purge adaptation deviation of filtered evap pump current durring reference measurement within range change in relative evap pump current during monitoring within time (during ECM keep alive-time after ignition off, max. time) airbag (after MIL illumination because of any EVAP leakage the monitor is only activated every)	<= 2700 [m] >= 600.0 [s] < 1.00 [V] >= 5.0 [s] 0 [km/h] < 5.00 [-] <= 1 [mA] n.a. n.a. < 900.0 [s] not activated 1 dcys		

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
	P2450	rationality check during engine off	evap pump current difference between reference measurement to idle	<= 3	[mA]	engine temperature @ engine start difference between ECT and IAT @ engine start ambient air temperature altitude time since engine start in preceding dcy change in battery voltage during monitoring engine off time vehicle speed evap purge adaptation no sudden change in evap pump current (filling event) deviation of filtered evap pump current durring reference measurement within range change in relative evap pump current during monitoring within time (during ECM keep alive-time after ignition off, max. time) airbag (after MIL illumination because of any EVAP leakage the monitor is only activated every)	>= 4 [°C] <= 15 [K] < 35; > 4 [°C] <= 2700 [m] >= 600.0 [s] < 1.00 [V] >= 5.0 [s] 0 [km/h] < 5.00 [-] < 2; > -1 [mA] <= 1 [mA] n.a. n.a. < 900.0 [s] not activated 1 dcys	13.5 [s] once / DCY	2 DCY
EVAP Leak Detection Pump	P0448	short to battery plus	signal current	> 2.2...4.0	[A]	evap pump solenoid valve	commanded on	0.5 [s] continuous	2 DCY
	P0448	short to ground	signal voltage	< 2.74...3.26	[V]	evap pump solenoid valve	commanded off	0.5 [s] continuous	2 DCY
	P0447	open circuit	signal voltage	> 4.7...5.4	[V]	evap pump solenoid valve	commanded off	0.5 [s] continuous	2 DCY
EVAP Leak Detection Pump	P2402	short to battery plus	short circuit signal voltage at evap pump current measuring resistor or pump stuck signal voltage at evap pump current measuring resistor	> 4.00	[V]	evap pump electric drive	commanded on	0.5 [s] continuous	2 DCY
	P2401	short to ground	signal voltage	< 2.74...3.26	[V]	evap pump electric drive	commanded off	0.5 [s] continuous	2 DCY
	P2400	open circuit	signal voltage	> 4.7...5.4	[V]	evap pump electric drive	commanded off	0.5 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
EVAP Leak Detection Pump	P240C	short to battery plus	signal current	> 2.2...4.0 [A]		evap pump heater	commanded on	0.5 [s] continuous	2 DCY
	P240B	short to ground	signal voltage	< 2.74...3.26 [V]		evap pump heater	commanded off	0.5 [s] continuous	2 DCY
	P240A	open circuit	signal voltage	> 4.7...5.4 [V]		evap pump heater	commanded off	0.5 [s] continuous	2 DCY
Fuel System	P2096	out of range	I-portion of 2nd lambda control loop	< -0.040 [-]		modeled exhaust gas temp. exhaust gas mass flow lambda control lambda control 2nd lambda control O2S front O2S rear O2S heater front O2S heater rear fuel cut off catalyst heating SAI	400...1000 [°C] 18.00...180.00 [kg/h] closed loop not at min or max limit closed loop ready ready active active not active not active not active	30.0 [s] continuous	2 DCY
	P2097	out of range	I-portion of 2nd lambda control loop	> 0.040 [-]		modeled exhaust gas temp. exhaust gas mass flow lambda control lambda control 2nd lambda control O2S front O2S rear O2S heater front O2S heater rear fuel cut off catalyst heating SAI	400...1000 [°C] 18.00...180.00 [kg/h] closed loop not at min or max limit closed loop ready ready active active not active not active not active	30.0 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
Fuel System	P2187	system too lean @ idle	adaptive value	> 5.02	[%]	number of injections after engine start engine speed mass air flow ECT IAT ratio manifold pressure to ambient pressure or valve overlap delta part load adaptation lambda control evap purge valve	> 1500 [-] < 860 [rpm] < 35 [kg/h] > 59 [°C] < 85 [°C] > 0.20 [-] < 40.00 [°CRK] ready closed loop closed	40.0 [s] continuous	2 DCY
	P2188	system too rich @ idle	adaptive value	< -5.02	[%]	number of injections after engine start engine speed mass air flow ECT IAT ratio manifold pressure to ambient pressure or valve overlap delta part load adaptation lambda control evap purge valve	> 1500 [-] < 860 [rpm] < 35 [kg/h] > 59 [°C] < 85 [°C] > 0.20 [-] < 40.00 [°CRK] ready closed loop closed	40.0 [s] continuous	2 DCY
	P2177	system too lean @ part load	adaptive value	> 28	[%]	number of injections after engine start engine speed engine load mass air flow ECT IAT ratio manifold pressure to ambient pressure or valve overlap lambda control evap purge valve	> 1500 [-] 1320...4600 [rpm] 25...100 [%] 45...300 [kg/h] > 59 [°C] < 85 [°C] > 0.20 [-] < 40.00 [°CRK] closed loop closed	25.0 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
	P2178	system too rich @ part load	adaptive value	< -20	[%]	number of injections after engine start engine speed engine load mass air flow ECT IAT ratio manifold pressure to ambient pressure or valve overlap lambda control evap purge valve	> 1500 [-] 1320...4600 [rpm] 25...100 [%] 45...300 [kg/h] > 59 [°C] < 85 [°C] > 0.20 [-] < 40.00 [°CRK] closed loop closed	25.0 [s] continuous	2 DCY
Leak to Intake Manifold	P2279	adaptation value monitoring	offset value throttle mass flow	> 13.00	[kg/h]	desired mass flow evap purge valve EGR	0.00...25.00 [kg/h] closed off	10.0 [s] multiple	2 DCY
Oxygen Sensors front	P2414	signal range check (check for sensor at ambient air)	threshold 1: signal voltage threshold 2: signal voltage Depending on gain factor, that actual is used for sensor	3.10...4.77	[V]	lambda set value O2S ceramic temp. fuel cut off heater control SAI if low fuel signal then wait	< 1.6 [-] > 715 [°C] not active closed loop not active > 0.0 [s]	15.0 [s] multiple	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
Oxygen Sensors front	P2195	out of range	delta lambda of 2nd lambda control loop	> 0.065	[-]	modeled exhaust gas temp. delta engine load exhaust gas mass flow lambda control 2nd lambda control O2S front O2S rear O2S heater front O2S heater rear fuel cut off catalyst heating SAI Case 1: 1st lambda control loop 2nd lambda control loop Case 2: 1st lambda control loop O2S front O2S rear voltage Case 3: 1st lambda control loop O2S front O2S rear voltage	400...1000 [°C] n.a. 18.00...180.00 [kg/h] closed loop closed loop ready ready ready ready not active not active not active not at min or max limit active at min limit < 1.0 [-] < 0.4 [V] at max limit > 1.0 [-] > 0.6 [V]	30.0 [s] multiple	2 DCY
	P2196	out of range	delta lambda of 2nd lambda control loop	< -0.065	[-]	modeled exhaust gas temp. delta engine load exhaust gas mass flow lambda control 2nd lambda control O2S front O2S rear O2S heater front O2S heater rear fuel cut off catalyst heating SAI Case 1: 1st lambda control loop 2nd lambda control loop Case 2: 1st lambda control loop O2S front O2S rear voltage Case 3: 1st lambda control loop O2S front O2S rear voltage	400...1000 [°C] n.a. 18.00...180.00 [kg/h] closed loop closed loop ready ready ready ready not active not active not active not at min or max limit active at min limit < 1.0 [-] < 0.4 [V] at max limit > 1.0 [-] > 0.6 [V]	30.0 [s] multiple	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
Oxygen Sensors front	P0133	response rate monitoring, area ratio and gradient ratio	SYMMETRIC FAULT: difference of R2L area ratio vs. L2R area ratio lower value of both counters for area ratio R2L and L2R Delay Time: gradient ratio lower value of both area ratios R2L and L2R Transient Time: gradient ratio gradient ratio lower value of both area ratios R2L and L2R or lower value of both gradient ratios R2L and L2R ASYMMETRIC FAULT: difference of R2L area ratio vs. L2R area ratio values of both counters for area ratio R2L and L2R Delay Time: gradient ratio lower value of both area ratios R2L and L2R Transient Time: gradient ratio gradient ratio lower value of both area ratios R2L and L2R or lower value of both gradient ratios R2L and L2R	-1.00...1.00 [-]		O2S front - min. operation temperatur is reached O2S front - time since operation readiness engine speed engine load gradient of engine load exhaust system lag time calculation gradient of exhaust system lag time calculation ECT catalyst temperature lambda control set-point prior to diagnostic fuel steps relative fuel amount from wall-applied compensation and evap purge time since last measurement gear shifting evap purge or evap purge 2nd lambda control loop forced lambda oscillation SAI tank leakage detection diagnosis evap purge system fuel cut off for any cylinders open circuit pump current (IP) only Flex fuel systems without ethanol sensor: ethanol concentration adaptation	> 720 [°C] > 40.0 [s] 1160...2720 [rpm] 13.99...70.01 [%] <= 4.99 [%] 0.1...0.5 [s] <= 0.0 [s] >= 62 [°C] >= 450 [°C] A/F-Ratio stoichiometric <= 0.1 [-] > 3.0 [s] n.a. not active > 2.0 [s] not active not active not active not active not active not active ready not active	107.0 [s] once / DCY	2 DCY
				>= 4 times					
Oxygen Sensors front	P0130	out of range	O2S ceramic temp.	< 640 [°C]		modeled exhaust gas temp.	> 300 [°C]	15.0 [s] multiple	2 DCY
						fuel cut off	not active		

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Oxygen Sensors front	P2251	open circuit virtual mass (VM)	O2S signal front and internal resistance	1.47...1.53	[V]	modeled exhaust gas temp. no fuel cut off heater control	< 750 [°C] > 2.0 [s] active		30.5 [s] multiple	2 DCY
	P2243	open circuit nernst voltage (UN)	O2S signal front and internal resistance	> 4.70	[V]	heater control	active		25.5 [s] multiple	2 DCY
			O2S signal front and internal resistance	< 0.20	[V]				25.5 [s] multiple	2 DCY
	P2626	open circuit adjustment voltage (IA)	O2S signal front	> 4.77	[V]	modeled exhaust gas temp. O2S ceramic temp. fuel cut off heater control if low fuel signal then wait	< 750 [°C] > 720 [°C] active closed loop > 0.0 [s]		2.0 [s] multiple	2 DCY
	P2237	open circuit pump current (IP)	O2S signal front and delta lambda controller	1.49...1.51	[V]	O2S ceramic temp. lambda modulation lambda control heater control	> 720 [°C] > 0.02 [-] closed loop closed loop		6.5 [s] multiple	2 DCY
	P0132	signal range check	<u>short to battery</u> virtual mass (VM) or nernst voltage (UN) or adjustment voltage (IA) or adjustment voltage (IP)	> 3.25	[V]				5.0 [s] multiple	2 DCY
				> 4.40	[V]					
				> 7.00	[V]					
				> 7.00	[V]					
	P0131	signal range check	<u>short to ground</u> virtual mass (VM) or nernst voltage (UN) or adjustment voltage (IA) or adjustment voltage (IP)	< 1.75	[V]				5.0 [s] multiple	2 DCY
				< 1.50	[V]					
				< 0.30	[V]					
				< 0.30	[V]					

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Oxygen Sensors rear 2-Point-LSF	P0137	O2S signal check - circuit continuity (short to ground, core connection signal wires)	signal voltage for time and difference of sensor voltage with load pulse and voltage without load pulse (mean value of 3 measurements)	< 0.06 [V] > 3.0 [s] < 0.01 [V]		<u>case 1: sensor ready for operation</u> sensor voltage or sensor voltage <u>case 2: sensor theoretical ready for operation</u> for time sensor sufficient heated up if exhaust temperature for time or heater power for time <u>general:</u> dew point exceeded fuel cut off catalyst purge	<= 0.40 [V] 0.50...1.08 [V] > 12.0 [s] >= 1263 [°C] > 18.0 [s] >= 24 [%] > 18.0 [s] not active not active	3.0 [s] multiple	2 DCY	
	P0138	O2S signal check - out of range high (short to battery plus)	signal voltage for time	> 1.08 [V] > 5.0 [s]		<u>case 1: sensor ready for operation</u> sensor voltage or sensor voltage <u>case 2: sensor theoretical ready for operation</u> for time sensor sufficient heated up if exhaust temperature for time or heater power for time <u>general:</u> dew point exceeded lambda set value	<= 0.40 [V] 0.50...1.08 [V] > 12.0 [s] >= 1263 [°C] > 18.0 [s] >= 24 [%] > 18.0 [s] > 0,995 [-]	5.0 [s] multiple	2 DCY	

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Oxygen Sensors rear 2-Point-LSF	P0140	O2S signal check - circuit continuity (sensor signal line open circuit)	signal voltage for time and difference of sensor voltage with load pulse and voltage without load pulse (mean value of 3 measurements)	0.40...0.60 [V] > 3.0 [s] >= 2.80 [V]		<u>case 1: sensor ready for operation</u> sensor voltage or sensor voltage <u>case 2: sensor theoretical ready for operation</u> for time sensor sufficient heated up if exhaust temperature for time or heater power for time <u>general:</u> dew point exceeded	<= 0.40 [V] 0.50...1.08 [V] > 12.0 [s] >= 1263 [°C] > 18.0 [s] >= 24 [%] > 18.0 [s]		30.0 [s] multiple	2 DCY
	P0140	O2S signal check - circuit continuity (sensor ground line open circuit)	internal resistance and exhaust temperature	> 40000 [Ohm] > 670 [°C]		<u>case 1: sensor ready for operation</u> sensor voltage or sensor voltage <u>case 2: sensor theoretical ready for operation</u> for time sensor sufficient heated up if exhaust temperature for time or heater power for time <u>general:</u> dew point exceeded valid Ri-measurements	<= 0.40 [V] 0.50...1.08 [V] > 12.0 [s] >= 1263 [°C] > 18.0 [s] >= 24 [%] > 18.0 [s] > 10 times		30.0 [s] multiple	2 DCY
Oxygen Sensors rear 2-Point-LSF	P2270	stuck lean (if sensor stuck lean: enrichment)	O2S signal rear not oscillating at reference and enrichment after stuck lean	< 0.64...0.65 [V] 20 [%]		mass air flow modeled exhaust gas temp. O2S rear readiness 2nd lambda control	22.00...120.00 [kg/h] > 300 [°C] > 10.0 [s] closed loop		215.0 [s] once / DCY	2 DCY
	P2271	stuck rich (if sensor stuck rich: enleanment) if enleanment is not successful: waiting for next fuel cut off	O2S signal rear not oscillating at reference and enleanment after stuck rich	> 0.64...0.65 [V] 15 [%]		mass air flow modeled exhaust gas temp. O2S rear readiness fuel cut off 2nd lambda control	22.00...120.00 [kg/h] > 300 [°C] > 10.0 [s] > 3.0 [s] closed loop		215.0 [s] once / DCY	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Oxygen Sensors Heater front	P0030	open circuit	heater voltage	4.70...5.40	[V]	time after engine start heater	> 5 commanded off	[s]	0.5 [s] continuous	2 DCY
	P0031	short to ground	heater voltage	0.0...3.26	[V]	time after engine start heater	> 5 commanded off	[s]	0.5 [s] continuous	2 DCY
	P0032	short to battery plus	signal current	> 5.50	[A]	time after engine start heater	> 5 commanded on	[s]	0.5 [s] continuous	2 DCY
Oxygen Sensors Heater front	P0135	out of range high	O2S ceramic temp. and heater duty cycle	< 720	[°C]	modeled exhaust gas temp. heater control	> 550 active	[°C]	70.0 [s] multiple	2 DCY
	P0135	rationality check (sensor heating up)	O2S ceramic temp. and time after O2S heater on	> 90.00 < 715	[%] [°C]	ECT @ start engine shut-off-time (during ECM keep alive-time after ignition off)	> -10 > 120.0 < 500.0	[°C] [s] [s]	35.0 [s] multiple	2 DCY
Oxygen Sensors Heater rear 2-Point-LSF	P0141	out of range	heater resistance	> 1200...32400	[Ohm]	modeled exhaust gas temp. engine shut-off-time (during ECM keep alive-time after ignition off) number of checks fuel cut off heater	300...680 > 120.0 < 500.0 10.00 not active commanded on	[°C] [s] [s] [-]	6.0 [s] multiple	2 DCY
Oxygen Sensors Heater rear 2-Point-LSF	P0036	open circuit	heater voltage	2.34...3.59	[V]	engine speed heater	> 80 commanded off	[rpm]	0.5 [s] continuous	2 DCY
	P0037	short to ground	heater voltage	< 2.34	[V]	engine speed heater	> 80 commanded off	[rpm]	0.5 [s] continuous	2 DCY
	P0038	short to battery plus	heater voltage	> 3.59	[V]	engine speed heater	> 80 commanded on	[rpm]	0.5 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Oxygen Sensors rear (binary LSF)	P2271	check of response time at fuel cut off	sensor voltage of	>= 0.15	[V]	time of fuel cut off	<= 90.0	[s]	10.0 [s] multiple	2 DCY
			after oxygen mass flow (after fuel cut off)	> 2000...3500	[mg]	time after last fuel cut off	>= 5.0	[s]		
			and			O2S rear	>= 430	[°C]		
			number of checks	>= 1.0	[-]	exhaust temperature at sensor	< 8.00	[-]		
						deviation between expected and measured front O2-sensor lambda signal				
						after time since fuel cut off at first cylinder	>= 2.0	[s]		
						oscillation check	ready			
						exhaust mass flow	> 12.00	[kg/h]		
						exhaust mass flow dynamic within range	-500.00...500.00	[kg/h]		
						sensor voltage at start of measurement	> 0.55	[V]		
Cold Start Detection		detection by engine off timer	---			engine off time	> 21600.0	[s]	100.0 [s] once / DCY	2 DCY
Engine Coolant Temperature Sensor	P0118	short to battery / open circuit	ECT	< -40	[°C]				2.0 [s] multiple	2 DCY
	P0117	short to ground	ECT	> 140	[°C]				2.0 [s] multiple	2 DCY
	P0116	stuck high	no change on signal	thres_01[f(ECT)]:	2 [K]	ECT @ start	temp_01	50...141 [°C]	70.0 [s] once / DCY	2 DCY
						ECT cold start		105...141 [°C] detected		
						substitute ECT	temp_02	> -45 [°C]		
						driving condition L:		0...20 [km/h]		
						vehicle speed		4.00...40.00 [kg/h]		
						mass air flow		> 10.0 [s] 3 times		
						time required / frequency				
						and				
						driving condition H:		50...150 [km/h]		
						vehicle speed		32.00...352.00 [kg/h]		
						mass air flow		> 40.0 [s]		
						time required / frequency		once		

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Engine Coolant Temperature Sensor	P0116	stuck low	no change on signal	<u>thres_01[f(ECT)]:</u>	2 [K]	ECT @ start ECT cold start substitute ECT <u>driving condition L:</u> vehicle speed mass air flow time required / frequency and <u>driving condition H:</u> vehicle speed mass air flow time required / frequency	<u>temp_01</u> 50...141 [°C] -42...75 [°C] detected <u>temp_02</u> > -45 [°C] 0...20 [km/h] 4.00...40.00 [kg/h] > 10.0 [s] 3 times 50...150 [km/h] 32.00...352.00 [kg/h] > 40.0 [s] once	70.0 [s] once / DCY	2 DCY	
	P0116	stuck in range	signal in range and no change on signal	75...105 [°C]	2 [K]	cold start stuck high ECT @ start substitute ECT <u>driving condition L:</u> vehicle speed mass air flow time required / frequency and <u>driving condition H:</u> vehicle speed mass air flow time required / frequency	detected fault <u>temp_01</u> 50...141 [°C] <u>temp_02</u> > -45 [°C] 0...20 [km/h] 4.00...40.00 [kg/h] > 10.0 [s] 3 times 50...150 [km/h] 32.00...352.00 [kg/h] > 40.0 [s] once	100.0 [s] once / DCY	2 DCY	
Engine Coolant Temperature Sensor rationality	P3081	measured engine coolant temp. below reference model	diff. reference model temperature vs. ECT	> 11	[K]				4.0 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Coolant System Performance	P2181	cooling system performance not in a expect range	cooling system temperature to low after a sufficient air mass flow integral	thers 03:	75 [°C]	begin of air mass integration when engine temp. ECT @ start AAT fuel cut off and engine load integrated air mass depending on engine temp. at start and AAT depending on temp. at engine start and min. observed AAT for longer than depending on temp. at engine start and min. observed AAT for more than <u>at time of fault decision:</u> average air mass flow average vehicle speed	thers 01:	30 [°C]	200.0 [s] once / DCY	2 DCY
Phase Sensor 1	P0343	rationality check	signal voltage	permanently high					0.5 [s] continuous	2 DCY
			and crankshaft signals	8 [-]						
	P0342	rationality check	signal voltage	permanently low					0.5 [s] continuous	2 DCY
			and crankshaft signals	8.00 [-]						
	P0341	rationality check	signal pattern	incorrect					0.5 [s] continuous	2 DCY
			defect counter	8.00 [-]						
RPM Sensor	P0321	rationality check	counted teeth vs. reference	incorrect					1.5 [s] multiple	2 DCY
			or monitoring reference gap	failure						
	P0322	signal activity check	camshaft signals	> 5.00 [-]					2.5 [s] multiple	2 DCY
			and engine speed	no signal						
Camshaft Position Sensor Inlet	P0016	angular offset check	permissible deviation	< -13.49 [°CRK]					10 [rev] multiple	2 DCY
			or permissible deviation	> 13.49 [°CRK]						

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters		Enable Condition		Monitoring Time Length	MIL Illum.
VVT Actuator Intake	P0010	open circuit	signal voltage	4.70...5.40	[V]	camshaft valve		off		0.5 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
	P2088	short to ground	signal voltage	0.0...3.25	[V]	camshaft valve		off		0.5 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
	P2089	short to battery plus	signal current	> 2.20	[A]	camshaft valve		on		0.5 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
VVT Actuator Intake	P000A	slow response	difference between target position vs. actual position for time and adjustment angle	> 8.00...12.00	[°CRK]	time after engine start		> 1.5...10.0	[s]	21.0 [s] multiple	2 DCY
				> 1.8...2.5	[s]	engine speed oil temperature frequency (normal operation)		600...6000 -48...143 7	[rpm] [°C] times		
	P0011	target error	difference between target position vs. actual position for time and adjustment angle	> 8.00...12.00	[°CRK]	time after engine start		> 1.5...10.0	[s]	21.0 [s] multiple	2 DCY
				> 1.8...2.5	[s]	engine speed oil temperature frequency (normal operation)		600...6000 -48...143 7	[rpm] [°C] times		
Altitude Sensor	P0606	plausibility check	signal gradient	> 50.00	[hPa]					2.0 [s] multiple	2 DCY
	P0606	plausibility check	signal gradient	< -50.00	[hPa]					2.0 [s] multiple	2 DCY
Altitude Sensor	P0606	short to battery / open circuit	signal voltage	> 4.88	[V]					0.2 [s] multiple	2 DCY
	P0606	short to ground	signal voltage	< 0.20	[V]					0.2 [s] multiple	2 DCY
Manifold Pressure Sensor	P0107	short to ground	signal voltage	< 0.20	[V]					1.0 [s] continuous	2 DCY
	P0108	short to battery / open circuit	signal voltage	> 4.86	[V]					1.0 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters		Enable Condition		Monitoring Time Length	MIL Illum.
Manifold Pressure Sensor	P0106	rationality check low	difference manifold pressure - lower threshold model model range	< 0	[hPa]					2.5 [s] multiple	2 DCY
	P0106	rationality check high	difference manifold pressure - upper threshold model model range	45...845	[hPa]					2.5 [s] multiple	2 DCY
	P0106	rationality check	diff. altitude sensor signal vs. manifold pressure signal at engine start	> 60.00	[hPa]	time after engine start engine speed		< 25.0 [s] < 330 [rpm]		2.5 [s] multiple	2 DCY
	P0106	adaptation value monitoring	offset value manifold pressure for load calculation in driving condition range 2	> 55.00	[hPa]	driving condition range 1 (omsna): engine speed desired mass flow delta adaptation value range 1 for time driving condition range 2 (opsra): engine speed manifold pressure delta adaptation value range 2 for time driving condition range 3 (opua): desired mass flow manifold pressure delta adaptation value range 3 for time general: engine operation in every driving condition diagnosis evap purge system engine speed manifold pressure ratio manifold pressure to ambient pressure		< 800 [rpm] 5.00...25.00 [kg/h] < 0.10 [kg/h] 1.0 [s] > 1400 [rpm] < 425.00 [hPa] < 2.97 [hPa] 8.0 [s] > 40.00 [kg/h] > 550.00 [hPa] < 2.97 [hPa] 5.0 [s] >= 2 times not active 500...6000 [rpm] > 0.00 [hPa] < 0.85 [-]		2.5 [s] multiple	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Manifold Pressure Sensor	P0106	adaptation value monitoring	offset value manifold pressure for load calculation in driving condition range 2	< -60.00	[hPa]	driving condition range 1 (omsna): engine speed desired mass flow delta adaptation value range 1 for time	< 800 [rpm] 5.00...25.00 [kg/h] < 0.10 [kg/h] 1.0 [s]		2.5 [s] multiple	2 DCY
						driving condition range 2 (opsra): engine speed manifold pressure delta adaptation value range 2 for time driving condition range 3 (opua): desired mass flow manifold pressure delta adaptation value range 3 for time general: engine operation in every driving condition diagnosis evap purge system engine speed manifold pressure ratio manifold pressure to ambient pressure	> 1400 [rpm] < 425.00 [hPa] < 2.97 [hPa] 8.0 [s] > 40.00 [kg/h] > 550.00 [hPa] < 2.97 [hPa] 5.0 [s] >= 2 times not active 500...6000 [rpm] > 0.00 [hPa] < 0.85 [-]			
Boost Pressure Sensor	P0107	short to ground	signal voltage	< 0.20	[V]	engine speed	> 60	[rpm]	0.5 [s] continuous	2 DCY
	P0108	short to battery / open circuit	signal voltage	> 4.86	[V]	engine speed	> 60	[rpm]	0.5 [s] continuous	2 DCY
Intake Air Temperature Sensor	P0112	short to ground	IAT	> 130	[°C]				5.0 [s] multiple	2 DCY
	P0113	short to battery / open circuit	IAT	< -46	[°C]				5.0 [s] multiple	2 DCY
Ambient Air Temperature Sensor	P0072	short to ground	ambient air temperature	> 87	[°C]	CAN	active		6.00 [s] multiple	2 DCY
	P0070	short to battery / open circuit	ambient air temperature	< -50	[°C]	CAN	active		6.00 [s] multiple	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Intake Air Temperature	P0111	cross check	diff. ECT vs. IAT at engine start	> 25	[K]	engine off time	> 6	[h]	0 [s] once / DCY	2 DCY
			(depending on engine off time) and diff. IAT vs. AAT at engine start (depending on engine off time) and diff. AAT vs. ECT at engine start (depending on engine off time)	> 25	[K]	Blockheater ECT @ start minus ECT @ condition: time after engine start	< 2	[K]		
				< 25	[K]	solar radiation case 1: AAT @ start minus AAT @ condition: vehicle speed for time	180.0	[s]		
						solar radiation case 2: IAT @ start minus IAT @ condition: vehicle speed for time	<= 2	[K]		
Ambient Air Temperature	P0071	cross check	diff. ECT vs. IAT at engine start	< 25	[K]	engine off time	> 6	[h]	0 [s] once / DCY	2 DCY
			(depending on engine off time) and diff. IAT vs. AAT at engine start (depending on engine off time) and diff. AAT vs. ECT at engine start (depending on engine off time)	> 25	[K]	Blockheater ECT @ start minus ECT @ condition: time after engine start	< 2	[K]		
				> 25	[K]	solar radiation case 1: AAT @ start minus AAT @ condition: vehicle speed for time	180.0	[s]		
						solar radiation case 2: IAT @ start minus IAT @ condition: vehicle speed for time	<= 2	[K]		
Vehicle Speed	P0501	plausibility check	vehicle speed	< 4	[km/h]	fuel cut off	active		1980 [ms] multiple	2 DCY
						engine speed ECT	1520...4520 > 40	[rpm] [°C]		

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Knock Sensor	P0327	short to ground Port B	lower threshold	< -0.70	[V]	engine speed	> 1000	[rpm]	0.5 [s] continuous	2 DCY
	P0332									
	P0327	short to ground Port A	lower threshold	< -0.70	[V]	engine speed	> 1000	[rpm]	0.5 [s] continuous	2 DCY
	P0332									
	P0328	short to battery plus Port B	upper threshold	> 1.00	[V]	engine speed	> 1000	[rpm]	0.5 [s] continuous	2 DCY
	P0333									
	P0328	short to battery plus Port A	upper threshold	> 1.00	[V]	engine speed	> 1000	[rpm]	0.5 [s] continuous	2 DCY
	P0333									
	P0327	signal range check	lower threshold	< 0.55...5.60	[V]	engine speed	> 2000	[rpm]	2.0 [s] multiple	2 DCY
	P0332					ECT engine load	> 41 > 30.00...37.50	[°C] [%]		
	P0328	signal range check	upper threshold	> 16.50...92.00	[V]	engine speed	> 2000	[rpm]	2.0 [s] multiple	2 DCY
	P0333					ECT engine load	> 41 > 30.00...37.50	[°C] [%]		
Knock Control	P0324	internal hardware check	signal fault counter (combustion)	> 30.00	[-]	engine speed	> 2000	[rpm]	0.5 [s] continuous	2 DCY
			or signal fault counter (measuring window)	> 2.00	[-]					
Throttle Position Sensor 1	P0122	out of range low	signal voltage	< 0.20	[V]				0.1 [s] multiple	2 DCY
	P0123	out of range high	signal voltage	> 4.81	[V]				0.1 [s] multiple	2 DCY
	P0121	rationality check	TPS1-TPS2	> 5.1...6.3	[%]	engine speed	> 480	[rpm]	0.3 [s] multiple	2 DCY
			and actual TPS1-calc.value	> actual TPS2-calc.value						
			or TPS1 - calc.value	> 9.00	[%]					
Throttle Position Sensor 2	P0222	out of range low	signal voltage	< 0.20	[V]				0.1 [s] multiple	2 DCY
	P0223	out of range high	signal voltage	> 4.81	[V]				0.1 [s] multiple	2 DCY
	P0221	rationality check	TPS1-TPS2	> 5.1...6.3	[%]	engine speed	> 480	[rpm]	0.3 [s] multiple	2 DCY
			and actual TPS2-calc.value	> actual TPS1-calc.value						
			or TPS2 - calc.value	> 9.00	[%]					

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
Throttle Actuator	P2106	short to battery plus/ short to ground	internal check	failed					0.5 [s] multiple	2 DCY
	P2106	open circuit	internal check	failed		duty cycle or deviation throttle value angles vs. calculated value	> 80 [%] > 4.00...50.00 [%]		0.5 [s] multiple	2 DCY
	P2106	temperatur / current monitoring	internal check	failed					0.5 [s] multiple	2 DCY
	P2106	functional check	internal check	failed					0.5 [s] multiple	2 DCY
	P2101	signal range check	duty cycle and ECM power stage	> 80 [%] no failure					5.0 [s] multiple	2 DCY
	P2101	rationality check	deviation throttle value angles vs. calculated value	> 4.00...50.00 [%]					0.5 [s] multiple	2 DCY
Throttle Actuator Basic Settings	P0638	rationality check close movement	time to close to reference point and reference point	> 0.6 [s] 2.88 [%]		engine speed vehicle speed ECT IAT <u>Case 1:</u> ignition <u>Case 2:</u> engine shut-off-time number of checks	0 [rpm] 0 [km/h] > -20 [°C] > -20 [°C] on 4 [s] 2.00 [-]		5.0 [s] multiple	2 DCY
	P0638	signal range check @ mechanical stop low	TPS 1 signal voltage or TPS 2 signal voltage or TPS1 + TPS2	NOT (0.40...0.80) [V] NOT (4.20...4.60) [V] NOT (4.82...5.18) [V]		engine speed vehicle speed <u>Case 1:</u> ignition ECT IAT <u>Case 2:</u> engine shut-off-time ECT IAT	0 [rpm] 0 [km/h] on -20...115 [°C] -20...143 [°C] 4 [s] 5...115 [°C] 5...143 [°C]		0.3 [s] multiple	2 DCY
Accelerator Position Sensor 1	P2122	out of range low	signal voltage	< 0.61 [V]					0.50 [s] continuous	2 DCY
	P2123	out of range high	signal voltage	> 4.79 [V]					0.50 [s] continuous	2 DCY
Accelerator Position Sensor 2	P2127	out of range low	signal voltage	< 0.27 [V]					0.5 [s] continuous	2 DCY
	P2128	out of range high	signal voltage	> 2.43 [V]					0.5 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
Accelerator Position Sensor 1 and 2	P2138	rationality check	signal voltage sensor 1 vs. 2	> 0.17...0.70	[V]	signal voltage sensor 1	> 445.00 [mV]	0.24 [s] continuous	2 DCY
						signal voltage sensor 2	> 445.00 [mV]		
Idle Controller	P0506	out of range low	engine speed deviation and RPM controller torque value	> 100	[rpm]	time after engine start engine speed vehicle speed altitude ECT IAT vehicle speed external torque request	> 0.0 [s] idle 0 [km/h] < 2700 [m] > -48 [°C] > -48 [°C] ready not demanded for manual transmission:	7.0 [s] multiple	2 DCY
	P0507	out of range high	engine speed deviation and RPM controller torque value	< -100	[rpm]	time after engine start engine speed vehicle speed altitude ECT IAT vehicle speed external torque request	< 34.50 [%] > 0.0 [s] idle 0 [km/h] < 2700 [m] > -48 [°C] > -48 [°C] ready not demanded		
Injection Valves	P0201	open circuit	signal voltage	4.50...5.50	[V]	injection valve	switched off	0.50 [s] continuous	2 DCY
	P0202 P0204 P0205 P0203					engine speed	> 80 [rpm]		
	P0261	short to ground	signal voltage	< 3.00	[V]	injection valve	switched off	0.50 [s] continuous	2 DCY
	P0264 P0270 P0273 P0267					engine speed	> 80 [rpm]		
	P0262	short to battery plus	signal current	2.20...4.00	[A]	injection valve	switched on	0.50 [s] continuous	2 DCY
	P0265 P0271 P0274 P0268					engine speed	> 80 [rpm]		

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters		Enable Condition		Monitoring Time Length	MIL Illum.
Fuel Pump Relay	P0627	open circuit	signal voltage	4.50...5.50	[V]	pump relay		commanded off		0.50 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
	P0627	short to ground	signal voltage	< 3.00	[V]	pump relay		commanded off		0.50 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
	P0629	short to battery plus	signal current	0.60...1.20	[A]	pump relay		commanded on		0.50 [s] continuous	2 DCY
						engine speed		> 80	[rpm]		
Engine-Off-Time	P150A	comparison of engine off time from instrument cluster control unit with engine after run time	difference between engine-off-time and ECM after-run time	< -12.0	[s]	key-on after ECM after-run time		active		6.00 [s] once / DCY	2 DCY
						CAN		active			
	P150A	comparison of engine off time from instrument cluster control unit with engine after run time	difference between engine-off-time and ECM after-run time	> 12.0	[s]	key-on during ECM after-run time		active		6.00 [s] once / DCY	2 DCY
						CAN		active			
Fan Control Coolant Temperature Sensor	P2185	short to battery / open circuit	ECT outlet	< -40	[°C]					2.0 [s] continuous	2 DCY
	P2184	short to ground	ECT outlet	> 140	[°C]					2.0 [s] continuous	2 DCY
Ignition Coils	P0351	open circuit	signal current	0.25...-2.0	[mA]	engine speed		> 680	[rpm]	2.0 [s] continuous	2 DCY
	P0352		or								
	P0354		internal check	failed							
	P0355										
	P0353										
	P2300	short to ground	signal current	> 24.0	[mA]	engine speed		> 680	[rpm]	2.0 [s] continuous	2 DCY
	P2303										
	P2309										
	P2312										
	P2306										
	P2301	short to battery plus	signal voltage	> 5.1...7.0	[V]	engine speed		> 680	[rpm]	2.0 [s] continuous	2 DCY
	P2304										
	P2310										
	P2313										
	P2307										
ECM: WDA	P0606	function monitoring: WDA	general cause	failure						0.5 [s] continuous	2 DCY
	P0606	function monitoring: WDA	internal check	failure						0.5 [s] continuous	2 DCY
	P0606	function monitoring: WDA	overvoltage detection	failure						0.5 [s] continuous	2 DCY
ECM: EEPROM	P0606	EEPROM check	check	failed						0.5 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
ECM: Self Check for Sensor IC	P0606	internal hardware check (electrical adjustment communication, voltage supply)	check	failed					0.50 [s] continuous	2 DCY
ECM: Sensor Reference Circuit A	P0641	signal range check	signal voltage deviation	> +/- 0.3	[V]				0.5 [s] continuous	2 DCY
ECM: Sensor Reference Circuit B	P0651	signal range check	signal voltage deviation	> +/- 0.3	[V]				0.5 [s] continuous	2 DCY
ECM: Sensor Reference Circuit C	P0697	signal range check	signal voltage deviation	> +/- 0.3	[V]				0.5 [s] continuous	2 DCY
ECM: 5V Supply Voltage	P0606	internal hardware check	under-/ overvoltage detection						2.0 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: A/D converter	test voltage / test pulse check	failed					0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: torque	comparison with allowed engine torque	incorrect		internal engine speed	> 600	[rpm]	0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: engine speed	difference between calculated and internal engine speed	> 320	[rpm]	internal engine speed	> 520	[rpm]	0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: ignition timing	internal check	failed					0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: intern	system reaction	incorrect					0.5 [s] continuous	2 DCY
	P0606	function monitoring: injection rate limitation	system reaction	incorrect					0.5 [s] continuous	2 DCY
ECM: EGAS module	P0169	function monitoring: injection time	comparison with fuel quantity	incorrect		internal engine speed	> 1200	[rpm]	0.5 [s] continuous	2 DCY
ECM: EGAS module	P0169	function monitoring: lambda mode	internal check	failed		internal engine speed	> 1200	[rpm]	0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	function monitoring: accelerator position	internal check	failed					0.5 [s] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Condition	Monitoring Time Length	MIL Illum.
ECM: EGAS module	P0169	function monitoring: mixture control	correction factor	incorrect		internal engine speed > 1200[rpm]	0.5 [s] continuous	2 DCY
	P0169	function monitoring: mixture control	fuel quantity	incorrect			0.5 [s] continuous	2 DCY
ECM: EGAS module	P0606	monitoring modul	function controller check	failed	SPL-interface	no failure	0.5 [s] continuous	2 DCY
			and monitoring module check	no failure				
ECM: EGAS module	P0169	function monitoring: load plausibility	abs. difference between predicted and real air mass	> 11.30 [%]	engine speed	>= 1200[rpm]	0.5 [s] continuous	2 DCY
CAN: Vehicle Speed Sensor	U0415	CAN communication with Vehicle Speed Sensor	speed sensor signal: initialisation error	327.08 [km/h]	time after ignition on	500 [ms]	1980 [ms] continuous	2 DCY
	U0415	CAN communication with Vehicle Speed Sensor	speed sensor signal: low voltage error	327.25 [km/h]	time after ignition on	500 [ms]	1980 [ms] continuous	2 DCY
	U0415	CAN communication with Vehicle Speed Sensor	speed sensor signal: sensor error	327.42 [km/h]	time after ignition on	500 [ms]	480 [ms] continuous	2 DCY
	U0415	CAN communication with Vehicle Speed Sensor	vehicle speed	>= 325 [km/h]	time after ignition on	500 [ms]	2100 [ms] continuous	2 DCY
	U0415	CAN communication with Vehicle Speed Sensor	speed sensor signal: out of range	326.39 [km/h]	time after ignition on	500 [ms]	480 [ms] continuous	2 DCY
CAN: Internal Fault	P0606	CAN controller RAM check	RAM error	memory checksum error	initialization phase		none [-] once / DCY	2 DCY
CAN: CAN-Bus A	U0001	reading back sent message	CAN message	no feedback	time after ignition on	500 [ms]	250 [ms] continuous	2 DCY
	U0002	CAN communication check	global time out	receiving no message	time after ignition on	500 [ms]	450 [ms] continuous	2 DCY
CAN: TCM	U0101	CAN communication with TCM	received CAN message	no message	time after ignition on	500 [ms]	500 [ms] continuous	2 DCY
	U0402	CAN communication with TCM	received data	implausible message	time after ignition on	500 [ms]	60 [ms] continuous	2 DCY

Component / System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value		Secondary Parameters	Enable Condition		Monitoring Time Length	MIL Illum.
CAN: TCM	U0302	CAN communication with TCM	recieved AT vehicle data	TCM signal		time after ignition on	500	[ms]	5000 [ms] continuous	2 DCY
CAN: Instrument Cluster	U0155	CAN communication with Instument Cluster Modul	received CAN message	no message		time after ignition on	500	[ms]	2000 [ms] continuous	2 DCY
	U0423	CAN communication with Instument Cluster Modul	received data	implausible message		time after ignition on	500	[ms]	3000 [ms] continuous	2 DCY
CAN: Ambient Air Temperature Sensor	U0423	communication with Instument Cluster Modul	ambient temperatur value (initialization)	00h [-]		key on status ambient temperatur from instrument cluster electrical check ambient temperature sensor	no fault no fault		3.0 [s] continuous	2 DCY
CAN: Gateway	U0146	CAN communication with Gateway	received CAN message	no message		time after ignition on	500	[ms]	500 [ms] continuous	2 DCY
CAN: Brake Unit	U0121	CAN communication with Brake Unit	received CAN message	no message		time after ignition on	500	[ms]	500 [ms] continuous	2 DCY
	U0415	CAN communication with Brake Unit	received data	implausible message		time after ignition on	500	[ms]	400 [ms] continuous	2 DCY

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 3/10/2010 9:30:05 PM
Subject: Re: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

Yes, I see it. I'm backed up today but I'd like to call and ask a few questions about it tomorrow.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 03/10/2010 11:37 AM
Subject: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

Hello Jim.

This is just a "heads-up" for the running change test waiver request that I just submitted to Verify. Bugatti is bumping up the engine output to 1200 h.p..

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; N=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 3/15/2010 3:16:57 PM
Subject: Re: VW Group: Request for ORVR Approval
CBI_BADXR0155D4Q_RFA_ORVR_R00.PDF

Yes, Lynn is still the person for reviewing ORVR systems.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 03/12/2010 02:32 PM
Subject: VW Group: Request for ORVR Approval

Hello Jim,

I have just submitted an ORVR system approval request to Verify, addressed to you, for MY 2011 Evap/Refueling Family BADXR0155D4Q. I attached a copy for your convenience.
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Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Robert.Hart@vw.com[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Mon 3/15/2010 5:42:22 PM
Subject: Fw: VW Group: Request for ORVR Approval
CBI BADXR0155D4Q RFA ORVR R00.PDF

Hi, Bob.

Since I almost never get onto Verify, please e-mail the ORVR file to me. After we complete the review, I will fax the cover sheet back to you with "Accepted and Reviewed" written on it. Manufacturers usually scan this and put it into the documents files with the ORVR application.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 03/15/2010 01:38 PM -----

From: Jim Snyder/AA/USEPA/US
To: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>, Lynn Sohacki/AA/USEPA/US@EPA
Date: 03/15/2010 11:16 AM
Subject: Re: VW Group: Request for ORVR Approval

Yes, Lynn is still the person for reviewing ORVR systems.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
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snyder.jim@epa.gov

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Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 3/15/2010 5:59:26 PM
Subject: RE: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

Bob, I waived the Bugatti request this morning. Did you receive an email notification of it from Verify?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 03/15/2010 07:50 AM
Subject: RE: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

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Let me know if you have any other questions.

Best regards,

Bob Hart

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Wednesday, March 10, 2010 4:30 PM
To: Hart, Robert (VWoA)
Subject: Re: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

Yes, I see it. I'm backed up today but I'd like to call and ask a few questions about it tomorrow.

Jim Snyder
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From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 03/10/2010 11:37 AM
Subject: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

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Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 3/15/2010 6:14:02 PM
Subject: FW: VW Group: Request for ORVR Approval
CBI_BADXR0155D4Q_RFA_ORVR_R00.PDF

Hello Lynn,

The Request for ORVR Approval is attached.

Best regards,

Bob Hart

Robert Hart

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3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
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-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Monday, March 15, 2010 1:42 PM
To: Hart, Robert (VWoA)
Subject: Fw: VW Group: Request for ORVR Approval

Hi, Bob.

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After we complete the review, I will fax the cover sheet back to you with "Accepted and Reviewed" written on it. Manufacturers usually scan this and put it into the documents files with the ORVR application.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 03/15/2010 01:38 PM -----

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To: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>, Lynn Sohacki/AA/USEPA/US@EPA
Date: 03/15/2010 11:16 AM

Subject: Re: VW Group: Request for ORVR Approval

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To: Jim Snyder/AA/USEPA/US@EPA

Date: 03/12/2010 02:32 PM

Subject: VW Group: Request for ORVR Approval

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E-mail: robert.hart@vw.com

(See attached file: CBI_BADXR0155D4Q_RFA_ORVR_R00.PDF)

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 3/15/2010 6:21:07 PM
Subject: RE: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify
<mailto:Snyder.Jim@epamail.epa.gov>

Hello Jim,

I just checked and I have the notification.

Thanks,

Bob Hart

From: Snyder.Jim@epamail.epa.gov [<mailto:Snyder.Jim@epamail.epa.gov>]
Sent: Monday, March 15, 2010 1:59 PM
To: Hart, Robert (VWoA)
Subject: RE: VW Group: MY 2010 Bugatti Running Change Test Waiver Request Submitted to Verify

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Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Robert Peavyhouse/AA/USEPA/US@EPA[]
Cc: Jim Snyder/AA/USEPA/US@EPA[]
From: "Thomas, Richard"
Sent: Tue 3/16/2010 11:47:49 AM
Subject: 2009 Volkswagen Group Final LDT CAFE
2009 CAFE LDT VWX VER01.txt

Hello Bob;

Thanks for returning my phone call yesterday. Please find the 2009 Volkswagen Group LDT Final CAFE CFEIS file as you suggested we start the 2009 model year EPA CAFE calculation process. I understand this will be the last year where we continue using the old CFEIS system for this submission. Would you return the calculation to me via an email or through the Verify mail system?

Best regards,
Richard E. Thomas
VOLKSWAGEN GROUP OF AMERICA, INC.
3800 Hamlin Road
Auburn Hills, MI48326
Engineering and Environmental Office (EEO)
Phone: 248 754-4213
Fax: 248 754-4207
Richard.Thomas@VW.com

FS 590 2009 8 37891 24.6421 24.6 24.6 23.1
 ZZ
 F1 590 001 2009 219 6 G M 00 Y Y N N N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.148 2.370 1.556 1.155 0.859 0.686
 FR 02 O 4.171 2.340 1.521 1.143 0.867 0.691
 FL 01 L 0 0 650 650 650
 FL 01 H 0 0 2000 2000 2000
 FL 02 L 0 0 700 700 700
 FL 02 H 0 0 2000 2000 2000
 FC TOUAREG and AUDI Q7 3.6L VR6
 FF 590 01 140 01 001 01 4.56 BHK 01 5500 20.3 3 9VWXT03.6276 2955
 FF 590 02 320 01 002 02 4.56 BHK 01 5500 20.4 3 9VWXT03.6276 6086
 FT 001 01 C 1074468 01
 FT 001 01 H 1074469 01
 FT 002 01 C 1078851 01
 FT 002 01 H 1078852 01
 ZZ
 F1 590 002 2009 254 8 G M 00 Y Y N N N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.148 2.370 1.556 1.155 0.859 0.686
 FL 01 L 0 1100 1100 1100 1100 1100
 FL 01 H 0 6900 6900 6900 6900 6900
 FC Audi Q7 4.2L FSI V8
 FF 640 01 320 01 001 01 4.32 BAR 01 6000 21.1 3 9ADXT04.23UD 1194
 FT 001 01 C 1085901 00
 FT 001 01 H 1085902 00
 ZZ
 F1 590 003 2009 254 8 G M 00 Y Y N N N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.148 2.370 1.556 1.155 0.859 0.686
 FL 01 L 0 1100 1100 1100 1100 1100
 FL 01 H 0 6900 6900 6900 6900 6900
 FC TOUAREG 4.2L V8
 FF 640 02 140 01 001 01 4.32 BAR 01 5500 20.3 3 9ADXT04.23UD 96
 FT 001 01 C 1085334 01
 FT 001 01 H 1085335 01
 ZZ
 F1 590 004 2009 181 6 D M 00 Y N N Y N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.148 2.370 1.556 1.155 0.859 0.686
 FL 01 L 0 1100 1100 1100 1100 1100
 FL 01 H 0 4300 4300 4300 4300 4300
 FC TOUAREG V6 3.0L TDI
 FF 590 01 140 01 001 01 3.90 CATA 01 5500 20.4 3 9ADXT03.03LD 833
 FT 001 01 C 9ADX10000221 00
 FT 001 01 H 9ADX10000222 00
 ZZ
 F1 590 005 2009 181 6 D M 00 Y N N Y N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.148 2.370 1.556 1.155 0.859 0.686
 FL 01 L 0 1100 1100 1100 1100 1100
 FL 01 H 0 4300 4300 4300 4300 4300
 FC AUDI Q7 V6 3.0L TDI
 FF 590 01 320 01 001 01 3.90 CATA 01 6000 19.7 3 9ADXT03.03LD 1120
 FT 001 01 C 9ADX10000016 00

FT 001 01 H 9ADX10000017 00
 ZZ
 F1 590 006 2009 194 6 G M 00 Y Y N N N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 FR 01 O 4.171 2.340 1.521 1.143 0.867 0.691
 FL 01 L 0 1100 1100 1100 1100 1100
 FL 01 H 0 3100 3100 3100 3100 3100
 FC Audi Q5 3.2L V6
 FF 640 01 330 01 001 01 4.22 CALB 01 4500 12.0 3 9ADXT03.23UC 6531
 FT 001 01 C 9ADX10001141 00
 FT 001 01 H 9ADX10000643 00
 ZZ
 F1 590 007 2009 121 4 G M 00 Y Y N Y N 04 N 8
 F2 01 S6 4 2 N N 3 C N
 F2 02 S6 F 2 N N 3 C N
 F2 03 M6 F 2 N N N N N
 FR 01 O 3.949 2.303 1.556 1.164 0.860 0.688
 FR 02 O 3.949 2.303 1.556 1.164 0.860 0.688
 FR 03 O 3.923 2.158 1.895 1.379 1.091 0.917
 FL 01 L 0 0 760 760 760 0
 FL 01 H 0 0 3100 2300 1675 0
 FL 02 L 0 0 760 760 760 0
 FL 02 H 0 0 3100 2300 1675 0
 FL 03 1 0
 FC TIGUAN 4MOTION TIGUAN fwd 2.0L
 FF 590 01 165 01 001 01 4.24 CCTA 01 4000 16.6 3 9AD XV02.03UA 7315
 FF 590 01 160 02 002 02 4.24 CCTA 01 3875 15.9 3 9AD XV02.03UA 11317
 FF 590 01 160 03 003 03 3.30 CCTA 01 3875 14.4 3 9AD XV02.03UA 444
 FT 001 01 C 1080420 00
 FT 001 01 C 1080427 00
 FT 001 01 C 1080428 00
 FT 001 01 C 1080434 00
 FT 001 01 H 1080421 00
 FT 002 01 C 9008456 01
 FT 002 01 H 9008416 01
 FT 003 01 C 1080444 00
 FT 003 01 H 1080700 00
 ZZ

To: [Ex. 7]@vw.com]
Cc: [redacted]
Bcc: [redacted]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 3/16/2010 7:42:43 PM
Subject: Re: VW/AUDI Meeting March 18, 2010

Thanks, I forwarded it so we can look at it beforehand.

Do you have a projector or do I need to reserve one?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: [Ex. 7]@vw.com>, [Ex. 7]
[Ex. 7]@AUDI.DE>, [Ex. 7]@volkswagen.de>, [Ex. 7]
[Ex. 7]@vw.com>
Date: 03/16/2010 10:22 AM
Subject: VW/AUDI Meeting March 18, 2010

Hello Jim:

In preparation for our meeting on March 18, 2010, I am providing, as a refresher, the report from our last meeting on January 27, 2010, including the presentation material.

Also attached is the new presentation material.

Please treat all materials as CONFIDENTIAL.

See you on Thursday.

Best regards,

[Ex. 7]

[Ex. 7]

[Ex. 7]
Engineering and Environmental Office

Volkswagen Group of America, Inc.

Ex. 7

E-Mail: **Ex. 7** @vw.com

[attachment "Microsoft PowerPoint - EPA_agenda_presentation_Jan_2010_part1.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "Microsoft PowerPoint - EPA_agenda_presentation_Jan_2010_part2.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "Meeting Report_JAN_27_2010.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "00_Agenda_EPA_Cert.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "01_HEV_EPA_Cert_f.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "02_EPA_operation_mode.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "03_EPA_EV_FCEV.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "04_HEV_EPA_Cert_f.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "05_EPA_test_matrix_types.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "06_EPA_Coldstart_valve.pdf" deleted by Jim Snyder/AA/USEPA/US]

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Wed 3/17/2010 1:48:31 AM
Subject: RE: VW/AUDI Meeting March 18, 2010

Hi Jim:

I will bring a projector.

Thanks,

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, March 16, 2010 3:43 PM
To: Ex. 7
Subject: Re: VW/AUDI Meeting March 18, 2010

Thanks, I forwarded it so we can look at it beforehand.

Do you have a projector or do I need to reserve one?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Ex. 7
To: Jim Snyder/AA/USEPA/US@EPA

Cc: Ex. 7

Date:

03/16/2010 10:22 AM

Subject:

VW/AUDI Meeting March 18, 2010

Hello Jim:

In preparation for our meeting on March 18, 2010, I am providing, as a refresher, the report from our last meeting on January 27, 2010, including the presentation material.

Also attached is the new presentation material.

Please treat all materials as CONFIDENTIAL.

See you on Thursday.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

[attachment "Microsoft PowerPoint - EPA_agenda_presentation_Jan_2010_part1.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "Microsoft PowerPoint - EPA_agenda_presentation_Jan_2010_part2.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "Meeting Report_JAN_27_2010.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "00_Agenda_EPA_Cert.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "01_HEV_EPA_Cert_f.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "02_EPA_operation_mode.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "03_EPA_EV_FCEV.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "04_HEV_EPA_Cert_f.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "05_EPA_test_matrix_types.pdf" deleted by Jim Snyder/AA/USEPA/US] [attachment "06_EPA_Coldstart_valve.pdf" deleted by Jim Snyder/AA/USEPA/US]

To: [Ex. 7]@vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 3/18/2010 8:38:22 PM
Subject: possible Cert preview dates

[Ex. 7] checked my calendar and it looks pretty open right now. 4/6 and 4/15 are busy but good otherwise. So just let me know when works for you guys.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Mon 3/22/2010 7:17:16 PM
Subject: Test Report

Hello Jim, Steve and Chris:

As a follow-up to our meeting last week, one of my colleagues in Germany has asked if EPA could possibly "...share a SOC test protocol and the +/- 1% criteria calculation...". Normally, the reference to protocol means report.

They would be interested in seeing what data are recorded and the data content of the calculation. If necessary, any vehicle- or manufacturer-specific information could be lined out.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
From: "Thomas, Suanne"
Sent: Fri 3/26/2010 1:11:59 PM
Subject: VW: AECD Submission V6 diesel 3.0L Test Group follow-up
[AECD MY11 V6TDI EPA DPF.pdf](#)
[SCR driver message system MY11.pdf](#)
[AECD Table B3 V6TDI update03h.pdf](#)
suanne.thomas@vw.com

Hi Jim:

This note is to follow-up on our phone conversation on 18Feb regarding the V6 diesel AECD documentation. Please see the attached files and let me know if you would like to discuss in more detail.

During our call, my understanding was that you would like to see the system description for SCR strategy when the urea is low. And also a description of the regeneration of the particulate trap. The PM-Trap-Strategies are active under all normal driving conditions and don't change due to specific trigger signals. Same for the SCR-Warning-System.

Also included is table „B3“ with the list of sensors and actuators with default mode/consequence. For clarification, here is additional definition of terms used in these documents: "Reduced EGR" means in most of the cases "EGR shut off" --> See Table B3; "Limited Torque" means reduced fuel (nothing else); "Limp Home" means further reduction of fuel mass compared to "Limited Torque" (--> Extremely Limited Torque). SCR is not affected by "Limp Home".

Any comments are welcome.

Best regards, Suanne

From: Thomas, Suanne
Sent: Tuesday, February 16, 2010 1:05 PM
To: 'snyder.jim@epa.gov'
Subject: RE: VW: AECD Submission V6 diesel 3.0L Test Group

Hi Jim: just checking if you have any comments/feedback for us.

Take care, Suanne

From: Thomas, Suanne
Sent: Monday, February 01, 2010 2:11 PM

To: 'snyder.jim@epa.gov'
Subject: VW: AECD Submission V6 diesel 3.0L Test Group

Dear Jim:

Attached is the information we just discussed regarding the AECD information for our V6 diesel.

We have used a new format for the information with the intent to make it more clear how the strategies work to assist in your review.

Please let me know if you would like an overview of the information via conference call. We are happy to do that, just let me know what time would be convenient for you.

Note: a timeslot in the morning would be preferable for us.

Sincerely,

Suanne Thomas

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4206
Cell: (248) 797-4074
FAX: (248) 754-4207
E-Mail: suanne.thomas@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 3/29/2010 1:14:09 PM
Subject: RE: VW Group: Request for ORVR Approval

Thanks for the update.

Bob Hart

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Monday, March 29, 2010 9:12 AM
To: Hart, Robert (VWoA)
Subject: RE: VW Group: Request for ORVR Approval

Hi, Bob.

I finished my review, another ORVR team member has reviewed it. I'm only waiting for one other person's review. He's out today but in tomorrow. He should be done tomorrow afternoon.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 03/29/2010 07:22 AM
Subject: RE: VW Group: Request for ORVR Approval

Hello Lynn,

Please give me the status of the ORVR approval request for
Evap/Refueling family BADXR0155D4Q submitted 15-Mar-10.

Best regards,

Bob Hart

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Monday, March 15, 2010 1:42 PM
To: Hart, Robert (VWoA)
Subject: Fw: VW Group: Request for ORVR Approval

Hi, Bob.

Since I almost never get onto Verify, please e-mail the ORVR file to me.
After we complete the review, I will fax the cover sheet back to you
with "Accepted and Reviewed" written on it. Manufacturers usually scan
this and put it into the documents files with the ORVR application.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 03/15/2010 01:38 PM -----

From: Jim Snyder/AA/USEPA/US

To: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>, Lynn
Sohacki/AA/USEPA/US@EPA

Date: 03/15/2010 11:16 AM

Subject: Re: VW Group: Request for ORVR Approval

Yes, Lynn is still the person for reviewing ORVR systems.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division United States
Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To: Jim Snyder/AA/USEPA/US@EPA

Date: 03/12/2010 02:32 PM

Subject: VW Group: Request for ORVR Approval

Hello Jim,

I have just submitted an ORVR system approval request to Verify, addressed to you, for MY 2011 Evap/Refueling Family BADXR0155D4Q. I attached a copy for your convenience.

I'm not sure who I needed to address it to. Does Lynn Sohacki still review ORVR systems?

Also, the last I heard, we no longer have to send a copy to NHTSA. They only want to see it if the EPA has concerns. Is that still the case?

This new Evap/Refueling Family uses a Natural Vacuum Leak Detection system (NVLD) that is new technology for the Volkswagen Group. Otherwise, the system is similar to our other evap families.

Please alert whomever is responsible for ORVR review to this submission.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com
(See attached file: CBI_BADXR0155D4Q_RFA_ORVR_R00.PDF)

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 3/30/2010 6:45:51 PM
Subject: Re: MY 2011 Lamborghini Information

Thanks Bob.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 03/30/2010 10:34 AM
Subject: MY 2011 Lamborghini Information

Hello Jim,

The attached file contains a short overview of the main technical features for the powertrain of 2011 Lamborghini project LB83x (it is the Murcielago successor but the model name is not yet determined).

Lamborghini does not have any new technology for 2011.

For 2012 this vehicle will be equipped as a Flex Fuel Vehicle (FFV), capable of running on E85 and gasoline.

Please let me know if this is sufficient or more detailed information is needed.

Please keep this information confidential

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

[attachment "Lamborghini 2011.pdf" deleted by Jim Snyder/AA/USEPA/US]

Roadload

Roadload coefficients derivation

- Track tests conducted where?
- What methodology is used – SAE, ISO procedures?
- Describe how coastdown vehicles are prepared/inspected
- At what point(s) in the development process are vehicles coasted down?
- What is the target vehicle mileage for coastdown testing?

Roadload Modeling

- Explain how your modeling process, if used, supplements actual road coastdown results
- How is the modeling validated?

Roadload Validation

- Do you validate results from pre-production prototype vehicles using production vehicles?
- If so, what do you observe statistically, if quantified?
- If you observe offsets, what do you do?
- What is the best metric for comparing roadload? RLHp at 50 mph? Integrated force or energy over standardized EPA drive cycles?
- Do you QC check roadload coefficients for abnormal looking results? How?

Roadload Benchmarking

- Do you conduct coastdown testing on competitor's vehicles?
- If so, can you share any observations in a confidential manner?

Drive Trace Analysis

- Describe your video driver's aid instrumentation – e.g. how it differs from what EPA uses
- Describe how you instruct drivers – e.g. follow CFR language stating follow the trace without excessive throttle movement?
- Do you use methods to audit/evaluate driving? If so, please describe them.
- Do you use an energy analysis to relate summed energy (or horsepower) to fuel economy when comparing fuel economy results from your lab to EPA?

General Correlation

- Do you participate in recurring inter-lab correlation programs?
- Describe the program and how you use the results

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 4/5/2010 5:07:28 PM
Subject: Lamborghini

Bob, I have a couple more questions on the Lamborghini.

- Is there still a manual trans version to be submitted or just an automatic?
-The FEDV shows a City, HWFE and US06. Why the US06, are you using 5 cycle testing or Derived? If you are using are you going with 5 cycle FE, are you proposing to use SC03 / Cold CO data from the EDV?

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 4/6/2010 2:38:00 PM
Subject: VW Group: New Test Waiver Requests Submitted - MY 2011 Audi

Hello Jim,

I just submitted two new test waiver requests (1 EDV and 1 FEDV) for Audi test group BADXV04.23UH. The EDV was tested for exhaust and Evap.

I believe I included enough information in the request for you to make a decision.

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 4/6/2010 3:15:08 PM
Subject: RE: Lamborghini

Hello Jim,

There is only the one transmission. It has a button to select a manual mode which allows you to use the paddles on the steering wheel to shift but there are no plans for a manual transmission with a clutch pedal. The transmission reverts back to automatic if the paddles are not used after a period of time.

We perform the tests to allow us to check both methods of FE calculation. Then we use whichever is better. We substitute the SC03 and Cold CO tests from the appropriate worst case (manual or automatic trans.) for the calculations.

Best regards,

Bob Hart

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Monday, April 05, 2010 1:07 PM
To: Hart, Robert (VWoA)
Subject: Lamborghini

Bob, I have a couple more questions on the Lamborghini.

- Is there still a manual trans version to be submitted or just an automatic?
-The FEDV shows a City, HWFE and US06. Why the US06, are you using 5 cycle testing or Derived? If you are using are you going with 5 cycle FE, are you proposing to use SC03 / Cold CO data from the EDV?

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 4/8/2010 3:11:56 PM
Subject: VW Group: Supplemental Information Submitted

Hello Jim,

I have submitted the Supplemental Information to the Verify System for the Audi A8L (TG: BADXV04.23UH) selected for Confirmatory Testing.

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 4/8/2010 6:10:45 PM
Subject: Re: VW Group: Supplemental Information Submitted

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 04/08/2010 11:12 AM
Subject: VW Group: Supplemental Information Submitted

Hello Jim,

I have submitted the Supplemental Information to the Verify System for the Audi A8L (TG: BADXV04.23UH) selected for Confirmatory Testing.

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 4/13/2010 1:58:55 PM
Subject: Test Process Question

Hello Jim,

Because it's been a while since Audi has had confirmatory tests that include an Evap test, they would like to verify the order of testing.

As we understand it, the process is as follows:

FTP

2-Day Evap test

No fuel change.

LA4 (as prep for US06)

US06

HWFET (as prep for HWFET)

HWFET

Is this correct?

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 4/13/2010 9:20:45 PM
Subject: Re: VW Group: Bugatti Carline

Yes, after reading and discussing with Tom and Dave, I am convinced the Veyron GT is not a different car line.

I'm still looking into it for other instances. Say, if the Audi A8L had a different FE label, I think it would need to be listed separately from the A8.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 04/12/2010 11:11 AM
Subject: VW Group: Bugatti Carline

Hello Jim,

I need to finish this running change fairly soon. Have you come to any conclusion on our Bugatti carline discussion yet?

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 4/14/2010 12:09:39 PM
Subject: RE: VW Group: Bugatti Carline

Hi Jim,

The A8 and A8L are different carlines.

Bob Hart

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, April 13, 2010 5:21 PM
To: Hart, Robert (VWoA)
Subject: Re: VW Group: Bugatti Carline

Yes, after reading and discussing with Tom and Dave, I am convinced the Veyron GT is not a different car line.

I'm still looking into it for other instances. Say, if the Audi A8L had a different FE label, I think it would need to be listed separately from the A8.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:
"Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To:
Jim Snyder/AA/USEPA/US@EPA

Date:
04/12/2010 11:11 AM

Subject:
VW Group: Bugatti Carline

Hello Jim,

I need to finish this running change fairly soon. Have you come to any conclusion on our Bugatti carline discussion yet?

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

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3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 4/15/2010 11:27:38 AM
Subject: Question Answered -FW: Test Process Question

Hello Jim,

I called Ben Haynes and got the answer to the question below.

Best regards,

Bob Hart

From: Hart, Robert (VWoA)
Sent: Tuesday, April 13, 2010 9:59 AM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Test Process Question

Hello Jim,

Because it's been a while since Audi has had confirmatory tests that include an Evap test, they would like to verify the order of testing.

As we understand it, the process is as follows:

FTP

2-Day Evap test

No fuel change.

LA4 (as prep for US06)

US06

HWFET (as prep for HWFET)

HWFET

Is this correct?

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 4/15/2010 6:26:41 PM
Subject: Supplemental Information Submitted for BADXT03.03UG

Hello Jim,

Vehicle ID: B3UG-TAQ cfg. 0 Test Group: BADXT03.03UG

This is just a heads-up for the supplemental information submission for the Audi Q7 diesel confirmatory tests.

The information has been successfully submitted.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 4/19/2010 6:53:51 PM
Subject: Test Waiver Request Submitted Under New Test Group

Hello Jim,

I resubmitted the test waiver request for test vehicle EDV B3UG-TAQ cfg 1 as cfg 2 for the LTD3 diesel Touareg under the new test group BADXT03.02UG. This is the diesel we spoke about last week. You told me that cfg. 0 has been selected for confirmatory testing. This vehicle as cfg. 1 was waived.

Cfg. 1 and 2 are identical, except that cfg. 2 is now an EDV. I may not have needed to create cfg. 2 but there is no way to delete a configuration once it is created.

We created this new test group to separate the LTD3 vehicle from the LTD4 test group because, as I explained, the LDT4 SFTP tests did not meet LDT3 SFTP standards.

Call me if you have any questions.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Linc Wehrly/OU=AA/O=USEPA/C=US
Sent: Thur 4/22/2010 8:46:40 PM
Subject: RE: Road Load Determination Discussion
<mailto:Wehrly.Linc@epamail.epa.gov>

Len,

Let's pick June 2 at 9:30 am. Let me know if this will be OK.

Linc

Linc Wehrly
Manager, Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, Jim Snyder/AA/USEPA/US@EPA
Date: 04/21/2010 05:52 PM
Subject: RE: Road Load Determination Discussion

Hi Linc:

After discussion with our colleagues, we propose the following meeting dates and times:

Wednesday, June 2, 2010 at 09:30, or
Wednesday, June 9, 2010 at 09:30

I expect that two people will attend from Germany. With one or two of us from the local office, the total would be three or four people.

Please let me know if one of these dates works.

Best regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.

Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

From: Wehrly.Linc@epamail.epa.gov [mailto:Wehrly.Linc@epamail.epa.gov]
Sent: Friday, April 16, 2010 12:42 PM
To: Kata, Leonard
Cc: Kohnen, Christoph (VWGoA); Snyder.Jim@epamail.epa.gov
Subject: RE: Road Load Determination Discussion

Len,

Thanks for the reply. June would be fine. Why don't you propose a date and time.

Linc

Linc Wehrly
Manager, Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: Jim Snyder/AA/USEPA/US@EPA, "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 04/16/2010 11:23 AM
Subject: RE: Road Load Determination Discussion

Hi Linc:

Regarding the meeting to discuss road load determination; I have forwarded the request to my colleagues overseas.

My understanding from speaking with Jim Snyder, is that EPA would prefer to have participation on the part of those directly involved in the road load determination process. In any case, there are currently a number of commitments for previously-scheduled meetings and holidays that take place between now and the end of May 2010. Therefore, we propose to meet in June 2010 (with the exception of the week of June 14, 2010).

Please let me know if this will work for you.

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Phone: (248) 754-4204
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E-Mail: leonard.kata@vw.com

From: Wehrly.Linc@epamail.epa.gov [mailto:Wehrly.Linc@epamail.epa.gov]
Sent: Friday, April 02, 2010 2:46 PM
To: Kata, Leonard
Subject: Road Load Determination Discussion

Len,

As we begin the process of implementing the new light-duty GHG regulations, we have been reviewing our current compliance practices to see where we need to make improvements. One of the areas that stands out is coast down testing and road load determination. We would like to meet with VW to discuss your current and past road load determination practices, so that we can get a better understand of your process. I'm attaching a list of questions that we would like to discuss. I know this can be a broad subject and we may not be able to address everything in a single meeting, so we may need to schedule some follow-up meetings if necessary. We were thinking the initial meeting would be about two hours. We were hoping to schedule this meeting sometime in the next several weeks.

Please let me know when would be a good time for you to meet. Let me know if you have any questions.

Thanks,
Linc

Linc Wehrly
Manager, Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

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Thanks,
Linc

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Manager, Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4286
wehrly.linc@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
From: "Thomas, Suanne"
Sent: Fri 4/23/2010 9:37:17 PM
Subject: RE: AECD Submission V6 diesel 3.0L Test Group follow-up
suanne.thomas@vw.com

Hi Jim: This is just to follow-up my phone message today, I would like confirm that our discussions on the AECDs for this concept for MY2011 are completed. Of course we are open to provide additional information to you however I would like to be sure that we are ready to process our MY2011 certification paperwork.

Thank you for your time spent in your review and we are willing to continue to improve the information format for future model year submissions. Any suggestions are welcome.

Take care, Suanne

From: Thomas, Suanne
Sent: Friday, March 26, 2010 9:12 AM
To: 'snyder.jim@epa.gov'
Cc: Hart, Robert (VWoA)
Subject: VW: AECD Submission V6 diesel 3.0L Test Group follow-up

Hi Jim:

This note is to follow-up on our phone conversation on 18Feb regarding the V6 diesel AECD documentation. Please see the attached files and let me know if you would like to discuss in more detail.

During our call, my understanding was that you would like to see the system description for SCR strategy when the urea is low. And also a description of the regeneration of the particulate trap. The PM-Trap-Strategies are active under all normal driving conditions and don't change due to specific trigger signals. Same for the SCR-Warning-System.

Also included is table „B3“ with the list of sensors and actuators with default mode/consequence. For clarification, here is additional definition of terms used in these documents: "Reduced EGR" means in most of the cases "EGR shut off" --> See Table B3; "Limited Torque" means reduced fuel (nothing else); "Limp Home" means further reduction of fuel mass compared to "Limited Torque" (--> Extremely Limited Torque). SCR is not affected by "Limp Home".

Any comments are welcome.

Best regards, Suanne

From: Thomas, Suanne
Sent: Tuesday, February 16, 2010 1:05 PM
To: 'snyder.jim@epa.gov'
Subject: RE: VW: AECD Submission V6 diesel 3.0L Test Group

Hi Jim: just checking if you have any comments/feedback for us.

Take care, Suanne

From: Thomas, Suanne
Sent: Monday, February 01, 2010 2:11 PM
To: 'snyder.jim@epa.gov'
Subject: VW: AECD Submission V6 diesel 3.0L Test Group

Dear Jim:

Attached is the information we just discussed regarding the AECD information for our V6 diesel.

We have used a new format for the information with the intent to make it more clear how the strategies work to assist in your review.

Please let me know if you would like an overview of the information via conference call. We are happy to do that, just let me know what time would be convenient for you.

Note: a timeslot in the morning would be preferable for us.

Sincerely,

Suanne Thomas

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4206
Cell: (248) 797-4074
FAX: (248) 754-4207
E-Mail: suanne.thomas@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Reineke, Dennis" [Dennis.Reineke@vw.com]
From: "Mathis, KeeKee"
Sent: Mon 4/26/2010 1:36:08 PM
Subject: FW: PO Number 4500295427
[PO Number 4500295427.pdf](#)

Attached you will find a copy of the PO# that was requested. Thanks.

From: cypress2@vw.com [mailto:cypress2@vw.com]
Sent: Friday, April 23, 2010 4:32 PM
To: Mathis, KeeKee
Subject: PO Number 4500295427

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ABERN HILLSM 48326
U.S.A.

Please include PO number
and supplier number on invoice.

Supplier:1000807784

Please address all invoices to:
Volkswagen Group of America, Inc.
Attn:Dennis Reineke
3800 Hamlin Road
Auburn Hills MI 48326

ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE/ENGINE PROGRAM
P.O. BOX 979032
SAINT LOUIS MO 63197-9000

Payment: Payable immediately Due net

Deliver FOB SHIPPING POINT

Item	Quantity	Description	Price /Unit	Total
00001	9	- TG Volkswagen		
	313,641.000	Value Unit	1.00	313,641.00
ITEM TEXT:				
-EPA Emission Certification				
- SAF# 12180				
00002	12	- TG Audi		
	418,188.000	Value Unit	1.00	418,188.00
00003	2	- TG Bentley		
	69,698.000	Value Unit	1.00	69,698.00
00004	1	- TG Lamborghini		
	34,849.000	Value Unit	1.00	34,849.00
Total net value excluding tax			USD	836,376.00

Note: Purchases are presumed to be taxable unless specifically identified as Tax Exempt.

This Purchase Order is made only upon and subject to all of the standard terms and conditions found on
<http://www.vwgroupsupply.com>.

Supplier Acknowledgement: Complete & Return Promptly

The above numbered order is acknowledged and accepted subject to the terms and conditions thereon.

Shipment Date

This is an electronically generated
Purchase Order valid without any signature.

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2010

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-4 EST)

U.S.A.

and supplier number on invoice.

Supplier:1000807784

Please address all invoices to:
Volkswagen Group of America, Inc.
Attn:Dennis Reineke
3800 Hamlin Road
Auburn Hills MI 48326

ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE/ENGINE PROGRAM
P.O. BOX 979032
SAINT LOUIS MO 63197-9000

PRICING TYPES:

Please reference supplier document refer to the U.S. Environmental Protection Agency and email) d
4/23/2010 outlining scope of service and all related costs.

Globe # Will enter at later date / Urgent PO# per Stefan 4/23/2010.

The above mentioned price must not be exceeded.

For technical questions, please contact the above mentioned requestor (1-248-754-4215).

The current version of General Terms and Conditions of Purchase can be found on
<http://www.vwgroupsupply.com>; using the following path:

Worldwide presence, VWGroup of America, Terms and Conditions, Non-Production Terms and
Conditions

Please note:

Invoices must contain the Purchase Order number and description of Goods and/or Services. Except as
otherwise stated in a Purchase Order, VWGA shall pay the Charges set forth in non-disputed invoices
based on a Net 60 day payment term. In the event of any delay in receiving an invoice, or any
or omissions in any invoice, VWGA may withhold payment without losing its rights to applicable cash
discounts. Except as otherwise stated in a Purchase Order, all payments will be in U.S. Dollars.

Supplier shall invoice sales tax in state/province of destination on taxable items. If tax is not spe
itemized, supplier is presumed to have included sales tax in invoiced price.

Pricing is subject to change subject to future negotiations.

To assure proper payment, supplier must invoice for goods and/or services in the same format as
shown on this Purchase Order.

ACCOUNTING INFORMATION: CC- 61000 GL-8190040
840080190041

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2010

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-4 EST)

3800 Hamlin Road
AUBURN HILLS MI 48326
U.S.A.

Please include PO number
and supplier number on invoice.

Supplier: 1000807784

Please address all invoices to:
Volkswagen Group of America, Inc.
Attn: Dennis Reineke
3800 Hamlin Road
Auburn Hills MI 48326

ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE/ENGINE PROGRAM
P.O. BOX 979032
SAINT LOUIS MO 63197-9000

8600479326
86000 1479394

3
2010

To: Willem VandenBroek/AA/USEPA/US@EPA[]

Cc: Jim Snyder/AA/USEPA/US@EPA[]

Ex. 7

Ex. 7

From: **Ex. 7**

Sent: Mon 4/26/2010 1:43:02 PM

Subject: 2011 EPA Certification Fees

2011 EPA Cert Fees Bugatti.pdf

Audi six TGs 2011 to Ajax.pdf

Hello Bill;

I thought it would better enable you to keep track of the Volkswagen Group (Volkswagen, Audi, Bentley, Lamborghini, Bugatti) certification fees paid, since our payments are made electronically and the fee filing forms are mailed to St. Louis.

I am attaching the first 2011 Volkswagen Group Certification Fee filing form for the Bugatti test group. This fee was paid or transferred to the EPA account last Friday, April 23rd. This fee filing form was mailed to St. Louis on the same day.

Additionally, six Audi test group fee filing forms are attached in a single pdf file for which the payment will be made this Friday, April 30th. I will mail these fee filing forms to St. Louis today.

If you rather not be notified with these email notices, or have a comment please feel free to contact me directly.

Best regards,

Ex. 7

VOLKSWAGEN GROUP OF AMERICA, INC.

Ex. 7



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM**

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP OF America, Inc.

Address 3800 Hamlin Road

City/State/Zip Code/Country Auburn Hills, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511) |
| <input type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY (\$17,591) | <input type="checkbox"/> HDE CALIF-ONLY (\$511) |
| <input type="checkbox"/> HDE (Engine Dyno cert) FEDERAL (\$35,967) | <input type="checkbox"/> MOTORCYCLE (\$1,210) |
| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B B G T V 0 8 . 0 V 1 6

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Ex. 6

Company Representative: RICHARD E. THOMAS

Signature: _____

Title: Emission Cert Strategist

Phone/Fax: 248 754 4213

/ 248 754 4207

Date: 4 / 7 / 2010

E-mail Address: Richard.Thomas@VW.com

Submission of payments and forms:

- (1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.
(2) Send **checks** and this **form** to:

**Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000**

- (3) Transmit offline **EFT/Wire payments** to the New York Federal Reserve Bank. (See Instructions, p.2)
(4) Transmit offline **EFT/ACH payments** to the Federal Reserve Bank of Cleveland. (Instructions, p.2)
(5) **Forms** not submitted under (1) and (2) above can be sent as email attachments to Fees@epa.gov.
Forms and payments sent in ways other than the above may be delayed or ineffective. See the Instructions for sending checks and forms by private mail service (e.g., Federal Express).

The public reporting and recordkeeping burden for this collection of information is estimated to average 18 minutes per response. Send comments on EPA's need for this information, the accuracy of the provided burden estimate, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques, to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed Form 3520-29 to this address.

This form expires: 1/1/2011



U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511). |
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EPA standard engine family or test group or
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B A D X T 0 3 . 0 2 U G

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EFT/ACH

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Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Ex. 6

Company Representative: RICHARD E. THOMAS

Signature: _____

Title: Emission Cert Strategist Phone/Fax: 248 754 4213 / 248 754 4207 Date: 4 / 23 / 2010

E-mail Address: Richard.Thomas@VW.com

Submission of payments and forms:

- (1) Online: **Forms** may be found and submitted with or without **payments** online at www.Pay.gov.
(2) Send **checks** and this form to:

Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

- (3) Transmit offline EFT/Wire payments to the New York Federal Reserve Bank. (See Instructions, p.2)
(4) Transmit offline EFT/ACH payments to the Federal Reserve Bank of Cleveland. (Instructions, p.2)
(5) **Forms** not submitted under (1) and (2) above can be sent as email attachments to Fees@epa.gov.
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This form expires: 1/1/2011



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM**

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511) |
| <input type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY (\$17,591) | <input type="checkbox"/> HDE CALIF-ONLY (\$511) |
| <input type="checkbox"/> HDE (Engine Dyno cert) FEDERAL (\$35,967) | <input type="checkbox"/> MOTORCYCLE (\$1,210) |
| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B A D X T 0 3 . 0 3 U G

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

EFT/ACH

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Company Representative: RICHARD E. THOMAS

Signature:

Title: Emission Cert Strategist

Phone/Fax: 248 754 4213

/ 248 754 4207

Date: 4/23/2010

E-mail Address: Richard.Thomas@VW.com

Submission of payments and forms:

- (1) Online: Forms may be found and submitted with or without payments online at www.Pay.gov.
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Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

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This form expires: 1/1/2011



U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

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|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511) |
| <input type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY (\$17,591) | <input type="checkbox"/> HDE CALIF-ONLY (\$511) |
| <input type="checkbox"/> HDE (Engine Dyno cert) FEDERAL (\$35,967) | <input type="checkbox"/> MOTORCYCLE (\$1,210) |
| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B	A	D	X	V	0	4	.	2	3	U	H
---	---	---	---	---	---	---	---	---	---	---	---

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

EFT/ACH

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Company Representative: RICHARD E. THOMAS

Signature:

Title: Emission Cert Strategist Phone/Fax: 248 754 4213 / 248 754 4207 Date: 4 / 23 / 2010

E-mail Address: Richard.Thomas@VW.com

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P.O. Box 979032
St. Louis, MO 63197-9000

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This form expires: 1/1/2011



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM**

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511) |
| <input type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) CAL-ONLY (\$17,591) | <input type="checkbox"/> HDE CALIF-ONLY (\$511) |
| <input type="checkbox"/> HDE (Engine Dyno cert) FEDERAL (\$35,967) | <input type="checkbox"/> MOTORCYCLE (\$1,210) |
| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B	A	D	X	V	0	5	.	2	3	8	5
---	---	---	---	---	---	---	---	---	---	---	---

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

EFT/ACH

Reduced Fee Section (40 CFR \$1027.120)

Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Company Representative: RICHARD E. THOMAS

Signature:

Title: Emission Cert Strategist Phone/Fax: 248 754 4213 / 248 754 4207 Date: 4 / 23 / 2010

E-mail Address: Richard.Thomas@VW.com

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Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000

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This form expires: 1/1/2011



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM**

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
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| <input type="checkbox"/> HDE (Engine Dyno cert) FEDERAL (\$35,967) | <input type="checkbox"/> MOTORCYCLE (\$1,210) |
| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B	A	D	X	J	0	3	.	2	3	U	C
---	---	---	---	---	---	---	---	---	---	---	---

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

EFT/ACH

Reduced Fee Section (40 CFR §1027.120)

Reduced fee calculation (minimum initial payment \$750): Total number of vehicles/engines covered: _____
Aggregate retail sales price of the vehicles/engines: \$ _____ x 1% = \$ _____
Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Company Representative: RICHARD E. THOMAS

Signature:

Title: Emission Cert Strategist Phone/Fax: 248 754 4213 / 248 754 4207 Date: 4 / 26 / 2010

E-mail Address: Richard.Thomas@VW.com

Submission of payments and forms:

- (1) Online: Forms may be found and submitted with or without payments online at www.Pay.gov.
(2) Send checks and this form to:

**Environmental Protection Agency
Motor Vehicle and Engine Compliance Program
P.O. Box 979032
St. Louis, MO 63197-9000**

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This form expires: 1/1/2011



**U.S. ENVIRONMENTAL PROTECTION AGENCY
MOTOR VEHICLE AND ENGINE COMPLIANCE PROGRAM
ON-HIGHWAY FEE FILING FORM**

FOR CERTIFICATION APPLICATIONS RECEIVED IN CALENDAR YEAR 2010

Manufacturer Name VOLKSWAGEN GROUP of AMERICA, Inc.

Address 3800 HAMLIN ROAD

City/State/Zip Code/Country AUBURN HILLS, MI 48326

On-Highway Certification Request Type (check one)

- | | |
|--|---|
| <input checked="" type="checkbox"/> LDV/LDT/MDPV/HDV (Chassis cert) FEDERAL (\$34,849) | <input type="checkbox"/> HDV EVAP-ONLY (\$511) |
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| | <input type="checkbox"/> LD/MDPV/HDV ICI (\$47,928) |

EPA standard engine family or test group or
HDV Evaporative family name:

B A D X V 0 3 . 0 3 U F

Amount paid (U.S. Funds Only):

\$ 34,849.00

Enter the check number, or the statement "EFT/WIRE" or "EFT/ACH":

EFT/ACH

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Check box if an Independent Commercial Importer: ☐ List the VIN of imported vehicles/engines below:

Company Representative: RICHARD E. THOMAS

Signature:

Title: Emission Cert Strategist

Phone/Fax: 248 754 4213

/ 248 754 4207

Date: 4 / 26 / 2010

E-mail Address: Richard.Thomas@ VW.com

Submission of payments and forms:

- (1) Online: Forms may be found and submitted with or without payments online at www.Pay.gov.
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This form expires: 1/1/2011

Page 2

Instructions

NOTE: This form applies to complete certification applications that are received in Calendar Year (CY) 2010.

Fee amounts due are subject to change every year. Use of the form for the wrong calendar year can cause incorrect payments and delays. Get the form for the calendar year of your application submission at www.epa.gov/otaq/fees.htm or www.Pay.gov. Forms and payments may be submitted online at www.Pay.gov.

Manufacturer Name and Address

List the applicant's corporate name and corporate address as it will appear on the Certificate of Conformity.

Certification Request Type

Check the box that specifies the certification request type. If you are paying a reduced fee, still mark the appropriate certification request type.

EPA Standard Engine Family or Test Group or HDV Evaporative Family Name

Enter the appropriate EPA standardized engine family or test group name as it will appear on the Certificate of Conformity. Forms and payments for Modification and Test vehicles under 40 CFR 85.1509 must list the engine family for the currently valid Certificate of Conformity under which the vehicles are being imported.

Amount Paid

Enter the appropriate fee amount for the designated certification request type. The full fee, payable in U.S. dollars, along with a properly completed fee filing form, must be received before certification review can begin. All banking fees are the responsibility of the manufacturer. The reduced fee amount (if applicable) is also entered in this box.

Check Number, EFT/ACH, or EFT/WIRE (for offline payments)

The check number is mandatory for check, money order, bank draft, or certified check; or enter the letters "EFT/WIRE" or "EFT/ACH" if sending an electronic funds transfer. Indicate the standard engine family or test group name on the check. **Make checks payable to "U.S. Environmental Protection Agency".**

Indicate in the EFT message field the information:

For Wire: RDFI: Federal Reserve Bank; Location Code (Same as EPA Account Number): 68-01-0099; "EPA MVECP Fee"; ABA number: 021030004. (ABA number is same as Swift Code or Routing Number for participating banks. For further information, email Fees@epa.gov). Note: the wire detail corresponding to ABA 021030004 is "TREAS NYC"; this is the same as the Federal Reserve Bank.

For ACH: RDFI: Federal Reserve Bank, Routing Transit number: 051036706, Account number: 540006, Account Name: U.S. Environmental Protection Agency (EPA). Note: the 051036706 company name appears as "U.S. EPA"; the receiving bank is still the Federal Reserve Bank of Cleveland.

Please include in wire or ACH message fields the following: the words "MVECP Fees", manufacturer name, and engine family/test group/HDV evaporative group name(s). If space is limited, list one name and the number of families.

Reduced Fee Section (if applicable)

Reduced fee submissions must be supported by the reduced fee calculation on Page 1 of this form and any relevant supporting information requested by EPA at the time of application review. Enter the number of vehicles/engines projected for sale under the engine family/test group. Enter the aggregate projected retail sales price of the vehicles or engines and multiply that value by 1% (.01). Enter and pay the reduced fee amount (minimum \$750). If you are an ICI, please enter the VIN for any vehicles/engines already (or soon to be) in your possession. For any additional VINs, please use a separate page. For further information see the reduced fee provisions under 40 CFR §1027.120.

Company Representative

Enter the representative's name, signature, title, phone/fax, date, and an e-mail address. **Note: an acknowledgment of fees received will be sent to this e-mail address. No other receipts will be sent.**

Bank Address for Private Mail Shipment (other than U.S. Postal Service)

If using a private shipping service such as Federal Express (or other service), send checks with fee filing forms to:

U.S. Bank
Government Lockbox 979032
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63101

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 4/26/2010 3:10:12 PM
Subject: Re: EPA 4WD Dyno Anchors

Yes, I confirmed with the lab supervisor that it is still valid.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 04/22/2010 07:26 AM
Subject: EPA 4WD Dyno Anchors

Hello Jim,

Audi would like verification that the anchoring system for the EPA's 4WD dyno described in the attachment is still valid.

Best regards,

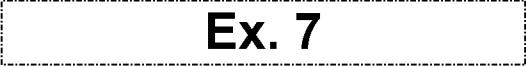
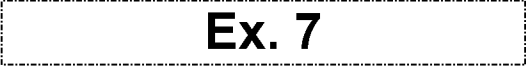
Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com
[attachment "20081022150640433.pdf" deleted by Jim Snyder/AA/USEPA/US]

To: David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im
Snyder/AA/USEPA/US@EPA[]
Cc: 
From: 
Sent: Wed 4/28/2010 1:16:42 PM
Subject: 2009 Volkswagen Group NOx Fleet Average Final Report
CBI_9VWX_COMMON_CR1_ABT_R00.XLS

Hello Dave;

As we discussed today on the phone, I wanted to bring to your attention that the three HLDLT test groups as listed on the "Current MY Credit Calculation" tab, do not appear in the summary section at the bottom of the page.

The attached file will be submitted to the agency via Verify later today. If you have any questions, please contact me directly.

Best regards,


Ex. 7

VOLKSWAGEN GROUP OF AMERICA, INC.


Ex. 7

To: richard.thomas@vw.com[]
Cc: christoph.kohnen@vw.com;CN=Jim
Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Robert
Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Ching-Shih
Yang/OU=AA/O=USEPA/C=US@EPA[]; N=Jim
Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Robert
Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Ching-Shih
Yang/OU=AA/O=USEPA/C=US@EPA[]; N=Robert
Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Ching-Shih
Yang/OU=AA/O=USEPA/C=US@EPA[]; N=Ching-Shih Yang/OU=AA/O=USEPA/C=US@EPA[]
From: CN=David Good/OU=AA/O=USEPA/C=US
Sent: Thur 4/29/2010 11:02:09 PM
Subject: 2011 FE Guide data for web posting on May 24, 2010 - Please review & let EPA know after the Verify data is error free and ready for posting on www.fueleconomy.gov
[VW 2010FE Guide all labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
[Audi 2010FE Guide all labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
[Audi 2010FE Guide new & revised labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
[Audi-VW-Etc 2011FEguide-w-sales-all-rel-dates-4-27-10.xls](#)
[Bentley 2010FE Guide all labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
[Bugatti 2010FE Guide all labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
[Lamborghini 2010FE Guide all labels for DOE-all rel dates-no-sales 4-9-10.xls](#)
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Richard,

Attached are Excel Spreadsheets for each manufacturer which you are handling.

Two Types of 2010 Data Files Provided FYI: One type of 2010 spreadsheet contains new and revised FE Labels since the web was last updated on October 16, 2009. This new data was sent to DOE on April 27, 2010 for web posting as soon as possible. The second type of 2010 spreadsheet contains all 2010 FE Labels in EPA's Verify data base as of April 9, 2010. Please review the 2010 files, make changes in EPA's data base as needed----please email Bob Peavyhouse and me if you see any major problems with the 2010 data as posted on the web.

One Type of 2011 Data File: The third type of spreadsheet contains all the 2011 FE label data from EPA's Verify data base as of April 27, 2010. Please review the 2011 spreadsheet and confirm for your records that the data are correct. Please make sure that the release date is accurate for the models listed. Please double check any new FE Labels which you input into Verify (not listed in this spreadsheet) to make sure they are error free. Any ccorrections should be made directly in the EPA Verify database. [Do not correct the spreadsheet and send it back.]

The last date to make changes for the 2011 web posting is May 17, 2010. EPA will review the data on May 18 and forward it to DOE on May 19 for posting on the web on May 24, 2010.

Reminders:

1. EPA Comments: Please review all the comments in column 1 of the spreadsheet and make corrections as needed.

2. EPA generated Fields: Please double check the transmission, gas guzzler and model type descriptor fields in the attached spreadsheet (called "Trans as listed in FE Guide (derived from col AA thru AF)" and "Guzzler?" and "Engine Descriptor (40 characters or less)" in the attached spread sheet). These fields were derived by EPA (and not directly input to Verify by manufacturers). Please be sure they are accurate as they will be used to describe your vehicles on the web.

3. FFVs & Dual fuel Vehicles: For flexible-fueled and dual fuel vehicles, please enter data for both fuels in the same model type index---by clicking on the buttons to "Add Another Fuel Usage" and "Add another Base Level Fuel Usage." Then, for example, enter the gasoline test data in "Base Level Fuel Usage #1" and the E85 test data in "Base Level Fuel Usage #2." Please don't enter the gasoline and alternative fuel data using two separate index numbers.

4. Engine or Model Type Descriptors: If you need to enter a basic engine/model type descriptor (so that customers can easily identify two otherwise identical model types), please enter the descriptor in the Verify "Manufacturer Fuel Economy Label Comments" field. Please be clear and concise (40 characters or less) about the information added in the comment field, for example: Engine descriptor "4-valve" needed for this model type.

5. Relabeling: When relabeling vehicles for reasons specified 40 CFR 600.507(a) and 600.314-08(e)(4), please revise the original Index with the revised FE label information and also revise the release date to the effective date when the FE Label was revised. Please include in the model type comment field the reason for relabeling. Note that the provisions of 40 CFR 600.314-08 state that label values must not change for entire model year, except for 600.507(a) and 600.314-08(e)(4) reasons.

6. New Error Checks: We added a new error check to the spreadsheet which checks the manufacturer's calculation of the unadjusted combined mpg value. If your unadjusted combined mpg value does not agree with EPA's calculation please revise Verify accordingly. Errors in the unadjusted combined mpg value are sometimes caused by entering into Verify incorrectly rounded unadjusted city and/or unadjusted highway mpg values.

7. Forwarded reminders: Also, please read the reminders in the forwarded message below.

Please email me and your EPA team member when your 2011 Verify data is "good to go" (after any needed changes or additions are made to Verify and you are sure that the Verify data is correct).

Regards

----- Forwarded by David Good/AA/USEPA/US on 04/29/2010 04:11 PM -----

From: David Good/AA/USEPA/US

Date: 04/20/2010 06:29 PM

Subject: 2011 FE Guide - Schedule for May, 2010 web release on www.fueleconomy.gov

To manufacturers,

Here's our tentative schedule for May, 2010 web update for the 2011 FE Guide.

2011 FE Guide Schedule: As you know, EPA and DOE typically put the new models on the web in mid-May, mid-July, Sept (first week) and Oct (second week). Attached is EPA's time line for this year's mid-May posting for early-introduction 2011MY vehicles.

Date	Action
Apr 27 (Tues)	EPA staff performs 2011 FE Guide Verify query (separated by mfr, etc) for EPA review
Apr 28 (Wed)	EPA sends FE Guide data to manufacturers for review & corrections; also sends prelim data to DOE
Apr 29-May 17	Mfrs review & make corrections
May 17 (Mon)	Last day for manufacturers to make corrections and add new data
May 18 (Tues)	EPA staff performs 2011 FE Guide Verify query for EPA review
May 19 (Wed)	EPA sends final data to DOE
May 24 (Mon)	DOE publishes 2011 FE Guide data on web

Reminders:

Release date for 2011 Labels: Please be sure that the release date is correct in EPA's Verify data base. For the May release, we will post FE Labels on the web which have a release date of May 24, 2010 and earlier.

2WD SUV Classification: As outlined in my Feb 24, 2010 email message to the Alliance and AIAM---when labeling 2WD SUVs, please continue to use the same vehicle classification category as in past model years (even though 2WD SUVs equal to or less than 6000 lbs GVWR will be included in 2011 passenger car CAFEs). EPA will require 2011 and later model year 2WD SUVs to continue to be included in the 2WD SUV comparable class for fuel economy labeling purposes, based on the provisions of 40 CFR 600.315-08(a)(1) and 600.315-08(a)(2) as revised in 74 FR 61537, November 25, 2009.

Rounding method changed slightly for mpg-based (derived) 5-cycle FE Labels: The rounding method for derived 5-cycle FE Label calculations changed slightly for reasons outlined in 74 FR 61537, November 25, 2009. The provisions of 40 CFR 600.210-08(a)(2)(i) and (a)(2)(ii) were revised to require the city and highway model type fuel economy values to be rounded to four decimal places prior to calculating the mpg-based (derived) 5-cycle FE Label values. Previously, the city and highway model type fuel economy values were rounded to one decimal place prior to calculating the mpg-based (derived) 5-cycle FE Label values.

Fuel Costs: New 2011 fuel costs will be provided to manufacturers in a future EPA guidance letter. Until the new fuel costs are provided, manufacturers should use the 2010 model year fuel costs provided in CISC-09-16. Please contact Bob Peavyhouse (734-214-4814 or by email) or me if you need a fuel cost for LPG or Hydrogen.

Range of comparable vehicles: Until the 2011 ranges (for the various classes of vehicles) are provided in a future EPA guidance letter, manufacturers should continue to use the 2010 model year ranges provided in CISC-09-17 (except if a model exceeds the 2010 range values, the manufacturer should extend the range appropriately); ref 40 CFR 600.306-08(b)(1).

If you have any questions, feel free to give your team member or me a call or send us an email message. I'm at 734-214-4450.

Regards

EPA comn	VERIFY cc	Model Yr	Mfr Name	Division	Carline	Verify Mfr Index (Mo	Eng Displ	# Cyl
Warning - if trans type is A	2010	Volkswage	Volkswage	NEW BEE	VWX	66	2.5	5
Error in combined unadjuste	2010	Volkswage	Volkswage	EOS	VWX	68	2.0	4
Warning - if trans type is A	2010	Volkswage	Volkswage	NEW BEE	VWX	65	2.5	5
	2010	Volkswage	Volkswage	NEW BEE	VWX	67	2.5	5
Warning - if trans type is A	2010	Volkswage	Volkswage	CC	VWX	71	3.6	6
Warning - if trans type is A	2010	Volkswage	Volkswage	CC 4MOTIV	VWX	72	3.6	6
Warning - if trans type is A	2010	Volkswage	Volkswage	GOLF	VWX	28	2.5	5
	2010	Volkswage	Volkswage	GOLF	VWX	31	2.5	5
Diesel; Warning - if trans typ	2010	Volkswage	Volkswage	GOLF	VWX	75	2.0	4
Diesel;	2010	Volkswage	Volkswage	GOLF	VWX	79	2.0	4
Warning - if trans type is A	2010	Volkswage	Volkswage	JETTA	VWX	27	2.5	5
	2010	Volkswage	Volkswage	JETTA	VWX	30	2.5	5
Diesel; Warning - if trans typ	2010	Volkswage	Volkswage	JETTA	VWX	74	2.0	4
Diesel;	2010	Volkswage	Volkswage	JETTA	VWX	77	2.0	4
Warning - if trans type is A	2010	Volkswage	Volkswage	PASSAT	VWX	52	2.0	4
Diesel; Warning - if trans typ	2010	Volkswage	Audi	A3	VWX	76	2.0	4
Warning - if trans type is A	2010	Volkswage	Volkswage	JETTA SP	VWX	26	2.5	5
	2010	Volkswage	Volkswage	JETTA SP	VWX	29	2.5	5
Diesel; Warning - if trans typ	2010	Volkswage	Volkswage	JETTA SP	VWX	73	2.0	4
Diesel;	2010	Volkswage	Volkswage	JETTA SP	VWX	78	2.0	4
Warning - if trans type is A	2010	Volkswage	Volkswage	PASSAT	VWX	54	2.0	4
Warning - if trans type is A	2010	Volkswage	Audi	Q7	VWX	62	3.6	6
Warning - if trans type is A	2010	Volkswage	Volkswage	TOUAREC	VWX	61	3.6	6

Trans as I	City FE (GHwy FE (C	Comb FE	City UnadHwy UnadComb Un	Guzzler?	Air Aspir	Air Aspira		
Auto(S6)	20	28	23	24.8461	39.7267	29.8832	NA	Naturally A
Auto(S6)	22	28	25	25.1733	39.7267	32.7685	TC	Turbochar
Auto(S6)	20	29	23	25.1733	40.8	30.4155	NA	Naturally A
Manual(M	20	28	23	24.9892	39.3753	29.9061	NA	Naturally A
Auto(S6)	18	27	21	21.2	35.1	25.7972	NA	Naturally A
Auto(S6)	17	25	20	20.5	33.5	24.8373	NA	Naturally A
Auto(A6)	23	30	25	27.0008	40.0169	31.8941	NA	Naturally A
Manual(M	22	30	25	25.18	39.6147	30.1185	NA	Naturally A
Auto(S6)	30	42	34	38.8462	60.1	46.1981	TC	Turbochar
Manual(M	30	41	34	38.7511	58.535	45.7021	TC	Turbochar
Auto(A6)	23	30	25	27.0008	40.0169	31.6305	NA	Naturally A
Manual(M	22	30	25	24.8525	39.5714	29.8486	NA	Naturally A
Auto(S6)	30	42	34	38.8462	60.1	46.1981	TC	Turbochar
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Trans Des	Trans, Otr#	Gears	Trans Loc	Trans Cre	Drive Sys	Drive Des	Max Ethar	Max Biodi
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SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	A	All Wheel Drive		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		5
SA	Semi-Automatic	6N	N	F	2-Wheel Drive, Front		

SA states Semi-Automatic must not change for entire model year, except for 600.507(e) and 600.314-08(e)(4) reasons

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Range1 - I	Fuel Usag	Fuel Usag	Fuel Unit	Fuel Unit	Gas Guzz	Gas Guzz	2Dr Pass	2Dr Lugg	4Dr Pass
	G	Gasoline (IMPG	miles per c	N	Not exemp	78	5		
	GP	Gasoline (IMPG	miles per c	N	Not exemp	77	11		
	G	Gasoline (IMPG	miles per c	N	Not exempt				
	G	Gasoline (IMPG	miles per c	N	Not exempt				
	GP	Gasoline (IMPG	miles per c	N	Not exempt				94
	GP	Gasoline (IMPG	miles per c	N	Not exempt				94
	G	Gasoline (IMPG	miles per c	N	Not exempt				
	G	Gasoline (IMPG	miles per c	N	Not exempt				
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			
	G	Gasoline (IMPG	miles per c	N	Not exempt				91
	G	Gasoline (IMPG	miles per c	N	Not exempt				91
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			91
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			91
	GP	Gasoline (IMPG	miles per c	N	Not exempt				96
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			
	G	Gasoline (IMPG	miles per c	N	Not exempt				92
	G	Gasoline (IMPG	miles per c	N	Not exempt				92
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			92
	DU	Diesel, ultr	MPG	miles per c	N	Not exempt			92
	GP	Gasoline (IMPG	miles per c	N	Not exempt				97
.];	GP	Gasoline (IMPG	miles per c	T	Truck				
.];	GP	Gasoline (IMPG	miles per c	T	Truck				

4Dr Lugg	Htchbk P2	Htchbk Lu	Annual Fc	EPA Calc	Comment	City2 FE (Hwy2 Fue Comb2 Fc	City2 Una
			1696		1696	updated with 2010 fuel unit price of \$2.60	
			1680		1680	this is a double clutch transmission and it has no torque con	
	85	12	1696		1696	updated with 2010 unit price for regular at \$2.60	
	85	12	1696		1696	updated with 2010 fuel unit price of \$2.60	
13			1999		1999	..update to 2010 fuel unit prcie of \$2.80	
13			2100		2100	..update to 2010 fuel unit prcie of \$2.80	
	94	15	1502		1502	CORRECTED MODEL TYPE FE AND ANNUAL FUEL COS	
	94	15	1560		1560	..update to 2010 fuel unit prcie of \$2.60	
	94	15	1191		1191	updated with 2010 units price of \$2.70 Diesel	
	94	15	1191		1191	updated with 2010 fuel unit price of \$2.70 Diesel	
16			1560		1560	..update to 2010 fuel unit prcie of \$2.60	
16			1560		1560	..update to 2010 fuel unit prcie of \$2.60	
16			1191		1191	updated with 2010 units price of \$2.70 Diesel	
16			1191		1191	updated with 2010 fuel unit price of \$2.70 Diesel	
14			1680		1680	CORRECTED DATA SUB TO NO SUB FOR ALL TESTS, ..	
	89	20	1191		1191	updated with 2010 units price of \$2.70 Diesel	
33			1560		1560	..update to 2010 fuel unit prcie of \$2.60	
33			1560		1560	..update to 2010 fuel unit prcie of \$2.60	
33			1191		1191	updated with 2010 units price of \$2.70 Diesel	
33			1191		1191	updated with 2010 fuel unit price of \$2.70 Diesel	
36			1680		1680updated with 2010 unit fuel price of \$2.80	
			2625		2625updated 2010 fuel unit price of \$2.80...RELABEL AFT	
			2625		2625updated 2010 fuel unit price of \$2.80.....RELAB	

Model	Year	Engine	Fuel	City	Highway	Combined	Ann	EPA	Engine	De
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verter with a lock-up.....updated with 2010 unit price of \$2.80

SIDI;

SIDI;

SIDI;

T FOR THIS GOLF ..update to 2010 fuel unit prcie of \$2.60

..updated with 2010 unit fuel price of \$2.80

SIDI;

ER EPA CONFIRMATORY TESTING.....

SIDI;

EL AFTER EPA CONFIRMATORY TESTING

SIDI; Unde

SIDI; Unde

Image	Model	Exhaust System	Carline	CI Carline	Calc Appr	Release	DEPA FE L	Placeholder	Unique La
2	2	2	2	Minicompacar	Derived 5-	7/22/2009	1919		N
2	2	2	3	Subcompacar	Vehicle Sp	7/22/2009	1906		N
2	2	2	3	Subcompacar	Derived 5-	7/22/2009	1917		N
2	2	2	3	Subcompacar	Derived 5-	7/22/2009	1918		N
2	2	2	4	Compact Ccar	Vehicle Sp	7/22/2009	1926		N
2	2	2	4	Compact Ccar	Vehicle Sp	7/22/2009	1927		N
2	2	2	4	Compact Ccar	Vehicle Sp	6/18/2009	1922		N
2	2	2	4	Compact Ccar	Vehicle Sp	6/18/2009	1925		N
2	2	2	4	Compact Ccar	Derived 5-	7/22/2009	1897		N
2	2	2	4	Compact Ccar	Derived 5-	7/22/2009	1902		N
2	2	2	4	Compact Ccar	Vehicle Sp	6/18/2009	1921		N
2	2	2	4	Compact Ccar	Vehicle Sp	6/18/2009	1924		N
2	2	2	4	Compact Ccar	Derived 5-	7/22/2009	1898		N
2	2	2	4	Compact Ccar	Derived 5-	7/22/2009	1900		N
2	2	2	5	Midsize Ccar	Vehicle Sp	6/12/2009	1903		N
2	2	2	7	Small Staticar	Derived 5-	7/22/2009	1896		N
2	2	2	7	Small Staticar	Vehicle Sp	6/18/2009	1920		N
2	2	2	7	Small Staticar	Vehicle Sp	6/18/2009	1923		N
2	2	2	7	Small Staticar	Derived 5-	7/22/2009	1899		N
2	2	2	7	Small Staticar	Derived 5-	7/22/2009	1901		N
2	2	2	8	Midsize Stcar	Vehicle Sp	6/12/2009	1904		N

Label	Rec	Relabel	Relabel D	Suppress	Police/Em	Comment	Cyl Deact	Cyl Deact	Var	Valve	Var	Valve
N				N	N		N		Y			INLET CO
N				N	N		N		Y			CONTINU
N				N	N		N		Y			INLET CO
N				N	N		N		Y			INLET CO
N				N	N		N		Y			INTAKE/E
N				N	N		N		Y			INTAKE/E
N				N	N		N		Y			INLET CO
N				N	N		N		Y			INLET CO
N				N	N		N		N			
N				N	N		N		N			
N				N	N		N		Y			INLET CO
N				N	N		N		Y			INLET CO
N				N	N		N		N			
N				N	N		N		N			
N				N	N		N		Y			CONTINU
N				N	N		N		N			
N				N	N		N		Y			INLET CO
N				N	N		N		Y			INLET CO
N				N	N		N		N			
N				N	N		N		N			
N				N	N		N		Y			CONTINU
ty, 20 MPC	highway, red	16	MPC combined;				N		Y			INTAKE/E
ty, 20 MPC	highway, red	16	MPC combined;				N		Y			INTAKE/E

Device	Var	Valve	Energy St	Energy St #	Battery	Battery Ty	Battery Ty	Total Volt	Batt Ener	Batt Spec
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
N	VARIABLE	VALVE TIMING								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
ST	CAMSHAFT POSITION CORRECTED WITH HYDRAULICALLY ADJUSTING	ROTATION ANGLE								
ST	CAMSHAFT POSITION CORRECTED WITH HYDRAULICALLY ADJUSTING	ROTATION ANGLE								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
N										
N										
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
N										
N										
N	VARIABLE	VALVE TIMING								
N										
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
QUSLY	VARIABLE / MECHANICAL	HYDRAULIC								
N										
N										
N	VARIABLE	VALVE TIMING								
ST	CAMSHAFT POSITION CORRECTED HYDRAULICALLY ADJUSTING	ROTATION ANGLE								
ST	CAMSHAFT POSITION CORRECTED HYDRAULICALLY ADJUSTING	ROTATION ANGLE								

Regen Br Regen Br Regen Br Driver Cnt Fuel Cell I Usable H2 Fuel Cell (

GT	EN	2	EV	Ap	#	City	(kg)	Motor	Ger	Motor	Ger	Rated	Moi	Fuel	Mete	Fuel	Metering	Type	2	Desc
----	----	---	----	----	---	------	------	-------	-----	-------	-----	-------	-----	------	------	------	----------	------	---	------

Multipoint/:
Spark Ignit
Multipoint/:
Multipoint/:
Spark Ignit
Spark Ignit
Multipoint/:
Multipoint/:
Direct Dies
Direct Dies
Multipoint/:
Multipoint/:
Direct Dies
Direct Dies
Spark Ignit
Direct Dies
Multipoint/:
Multipoint/:
Direct Dies
Direct Dies
Spark Ignit
Spark Ignit
Spark Ignit

EPA com	VERIFY cc	Model Yr	Mfr Name	Division	Carline	Verify Mfr Index (Mo	Eng Displ	# Cyl
Warning - if trans type is A	2010	Audi	Audi	R8	ADX	16	5.2	10
	2010	Audi	Audi	R8	ADX	17	5.2	10
	2010	Audi	Audi	R8	ADX	32	4.2	8
	2010	Audi	Audi	R8	ADX	33	4.2	8
Warning - if trans type is A	2010	Audi	Audi	TT ROAD	ADX	45	2.0	4
	2010	Audi	Lamborghini	Gallardo	CADX	12	5.2	10
	2010	Audi	Lamborghini	Gallardo	CADX	14	5.2	10
Warning - if trans type is A	2010	Audi	Lamborghini	Gallardo	SADX	13	5.2	10
	2010	Audi	Lamborghini	Gallardo	SADX	15	5.2	10
Error in combined unadjuste	2010	Audi	Audi	A5 Cabrio	ADX	19	2.0	4
	2010	Audi	Audi	A5 Cabrio	ADX	23	2.0	4
	2010	Audi	Audi	A5 QUATT	ADX	22	2.0	4
	2010	Audi	Audi	A5 QUATT	ADX	25	2.0	4
Warning - if trans type is A	2010	Audi	Audi	A5 QUATT	ADX	60	3.2	6
	2010	Audi	Audi	S5	ADX	9	4.2	8
	2010	Audi	Audi	S5	ADX	10	4.2	8
Warning - if trans type is A	2010	Audi	Audi	S5 Cabrio	ADX	38	3.0	6
Warning - if trans type is A	2010	Audi	Audi	TT COUPE	ADX	44	2.0	4
	2010	Audi	Volkswage	EOS	ADX	57	2.0	4
Error in combined unadjuste	2010	Audi	Audi	A4	ADX	18	2.0	4
	2010	Audi	Audi	A4 QUATT	ADX	21	2.0	4
	2010	Audi	Audi	A4 QUATT	ADX	24	2.0	4
	2010	Audi	Audi	S4	ADX	36	3.0	6
Warning - if trans type is A	2010	Audi	Audi	S4	ADX	37	3.0	6
Warning - if trans type is A	2010	Audi	Volkswage	CC	ADX	53	2.0	4
	2010	Audi	Volkswage	CC	ADX	58	2.0	4
	2010	Audi	Volkswage	GTI	ADX	56	2.0	4
Warning - if trans type is A	2010	Audi	Volkswage	GTI	ADX	70	2.0	4
	2010	Audi	Volkswage	JETTA	ADX	55	2.0	4
Warning - if trans type is A	2010	Audi	Volkswage	JETTA	ADX	69	2.0	4
	2010	Audi	Audi	A6	ADX	59	3.2	6
	2010	Audi	Audi	A6 QUATT	ADX	8	4.2	8
	2010	Audi	Audi	A6 QUATT	ADX	34	3.0	6
	2010	Audi	Audi	A8	ADX	7	4.2	8
Warning - if trans type is A	2010	Audi	Audi	S6	ADX	42	5.2	10
	2010	Audi	Audi	A8 L	ADX	6	4.2	8
	2010	Audi	Audi	A3	ADX	46	2.0	4
Warning - if trans type is A	2010	Audi	Audi	A3	ADX	47	2.0	4
Warning - if trans type is A	2010	Audi	Audi	A3 QUATT	ADX	43	2.0	4
	2010	Audi	Audi	A4 AVANT	ADX	20	2.0	4
	2010	Audi	Audi	A6 AVANT	ADX	35	3.0	6
Warning - if trans type is A	2010	Audi	Volkswage	TIGUAN	ADX	50	2.0	4
	2010	Audi	Volkswage	TIGUAN	ADX	51	2.0	4
Warning - if trans type is A	2010	Audi	Audi	Q5	ADX	48	3.2	6
	2010	Audi	Audi	Q7	ADX	11	4.2	8
Diesel; Warning - if trans ty	2010	Audi	Audi	Q7	ADX	63	3.0	6
Warning - if trans type is A	2010	Audi	Volkswage	TIGUAN	4/ADX	49	2.0	4
Diesel; Warning - if trans ty	2010	Audi	Volkswage	Touareg	ADX	64	3.0	6

Trans as I	City FE (G	Hwy FE (C	Comb FE	City Unad	Hwy Unad	Comb Unad	Guzzler?	Air Aspir	Air Aspira
Auto(AM6)	13	20	16	15.8	24.8	18.8839	G	NA	Naturally A
Manual(M6)	12	20	15	13.7	23.9	16.9565	G	NA	Naturally A
Auto(S6)	13	18	15	15.4	25.0451	18.6283	G	NA	Naturally A
Manual(M6)	12	19	15	15.3	26.8	18.9614	G	NA	Naturally A
Auto(S6)	21	29	24	27.5267	39.7256	31.9404		TC	Turbochar
Auto(AM6)	14	20	16	16.1	25.4	19.276	G	NA	Naturally A
Manual(M6)	12	20	15	14	24	17.2308	G	NA	Naturally A
Auto(AM6)	13	20	16	16	25.4	19.197	G	NA	Naturally A
Manual(M6)	12	20	14	13	22.6	16.0722	G	NA	Naturally A
Auto(AV)	23	30	26	29.2373	42.7743	34.0926		TC	Turbochar
Auto(S6)	20	26	23	25.9	37	29.9422		TC	Turbochar
Auto(S6)	21	27	23	25.9563	37.7989	30.2164		TC	Turbochar
Manual(M6)	22	30	25	27.6402	42.575	32.8212		TC	Turbochar
Auto(S6)	18	27	21	22.6	36.2	27.1981		NA	Naturally A
Auto(S6)	16	24	19	20.4	31	24.1098		NA	Naturally A
Manual(M6)	14	22	17	17.3	29.3	21.2088	G	NA	Naturally A
Auto(S7)	17	26	20	20.3	34	24.7961		SC	Superchar
Auto(S6)	21	29	24	27.5267	39.7256	31.9404		TC	Turbochar
Manual(M6)	21	31	25	26.0803	41.521	31.3218		TC	Turbochar
Auto(AV)	23	30	26	29.2373	42.7743	34.0926		TC	Turbochar
Auto(S6)	21	27	23	25.9563	37.7989	30.2164		TC	Turbochar
Manual(M6)	22	30	25	27.6402	42.575	32.8212		TC	Turbochar
Manual(M6)	18	27	21	21.5	34.1	25.7879		SC	Superchar
Auto(S7)	18	28	21	21.6	35	26.096		SC	Superchar
Auto(S6)	22	31	25	27.1189	42	32.2629		TC	Turbochar
Manual(M6)	21	31	25	26.0803	41.521	31.3218		TC	Turbochar
Manual(M6)	21	31	25	26.0803	41.521	31.3218		TC	Turbochar
Auto(S6)	24	32	27	29.8294	43.5414	34.7546		TC	Turbochar
Manual(M6)	21	31	25	26.0803	41.521	31.3218		TC	Turbochar
Auto(S6)	24	32	27	29.8294	43.5414	34.7546		TC	Turbochar
Auto(AV)	18	28	22	23	38.9	28.184		NA	Naturally A
Auto(S6)	16	23	18	19.8911	31.5002	23.8458		NA	Naturally A
Auto(S6)	18	26	21	21.7553	34.7286	26.1514		SC	Superchar
Auto(S6)	16	23	18	19.8911	31.5002	23.8458		NA	Naturally A
Auto(S6)	14	19	16	17.2	26.7	20.4789	G	NA	Naturally A
Auto(S6)	16	23	18	19.8911	31.5002	23.8458		NA	Naturally A
Manual(M6)	21	30	24	25.2906	40.4003	30.4083		TC	Turbochar
Auto(S6)	22	28	24	27.0473	38.8702	31.3364		TC	Turbochar
Auto(S6)	21	28	24	27.2	37.1	30.9119		TC	Turbochar
Auto(S6)	21	27	23	25.9563	37.7989	30.2164		TC	Turbochar
Auto(S6)	18	26	21	21.7553	34.7286	26.1514		SC	Superchar
Auto(S6)	18	24	21	22.9	34.1	26.8716		TC	Turbochar
Manual(M6)	19	26	21	23.3	36.2	27.75		TC	Turbochar
Auto(S6)	18	23	20	22.7	30.7	25.7155		NA	Naturally A
Auto(S6)	13	18	15	16.2	24.6	19.1412		NA	Naturally A
Auto(S6)	17	25	20	19.8	33.2	24.1943		TC	Turbochar
Auto(S6)	18	24	20	22.5	33.3	26.3449		TC	Turbochar
Auto(S6)	18	25	20	21.9	34.4	26.1811		TC	Turbochar

Trans Des	Trans, Otr	# Gears	Trans Loc	Trans Cre	Drive Sys	Drive Des	Max Ethar	Max Biodi
AD	Automated Manual	6N	N	A		All Wheel Drive		
AD	Manual	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
AD	Manual	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
AD	Automated Manual	6Y	N	A		All Wheel Drive		
AD	Manual	6N	N	A		All Wheel Drive		
AD	Automated Manual	6N	N	A		All Wheel Drive		
AD	Manual	6N	N	A		All Wheel Drive		
CVT	Continuously Variable	1N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
M	Manual	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
AD	Manual	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	7N	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
M	Manual	6N	N	F		2-Wheel Drive, Front		
CVT	Continuously Variable	1N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
M	Manual	6Y	N	A		All Wheel Drive		
M	Manual	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	7N	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	F		2-Wheel Drive, Front		
M	Manual	6N	N	F		2-Wheel Drive, Front		
M	Manual	6N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F		2-Wheel Drive, Front		
M	Manual	6N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F		2-Wheel Drive, Front		
CVT	Continuously Variable	1N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
M	Manual	6N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	F		2-Wheel Drive, Front		
M	Manual	6N	N	F		2-Wheel Drive, Front		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6Y	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		5
SA	Semi-Automatic	6N	N	A		All Wheel Drive		
SA	Semi-Automatic	6N	N	A		All Wheel Drive		5

Range1 - IFuel Usag	Fuel Usag	Fuel Unit	Fuel Unit	Gas Guzz	Gas Guzz	2Dr Pass	2Dr Lugg	4Dr Pass
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exemp	81		10	
GP	Gasoline (IMPG	miles per c	N	Not exemp	81		10	
GP	Gasoline (IMPG	miles per c	N	Not exemp	84		12	
GP	Gasoline (IMPG	miles per c	N	Not exemp	84		12	
GP	Gasoline (IMPG	miles per c	N	Not exemp	84		12	
GP	Gasoline (IMPG	miles per c	N	Not exemp	84		12	
GP	Gasoline (IMPG	miles per c	N	Not exemp	84		12	
GP	Gasoline (IMPG	miles per c	N	Not exemp	81		10	
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exemp	77		11	
GP	Gasoline (IMPG	miles per c	N	Not exempt				91
GP	Gasoline (IMPG	miles per c	N	Not exempt				91
GP	Gasoline (IMPG	miles per c	N	Not exempt				91
GP	Gasoline (IMPG	miles per c	N	Not exempt				90
GP	Gasoline (IMPG	miles per c	N	Not exempt				90
GP	Gasoline (IMPG	miles per c	N	Not exempt				94
GP	Gasoline (IMPG	miles per c	N	Not exempt				94
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				
GP	Gasoline (IMPG	miles per c	N	Not exempt				91
GP	Gasoline (IMPG	miles per c	N	Not exempt				91
GP	Gasoline (IMPG	miles per c	N	Not exempt				98
GP	Gasoline (IMPG	miles per c	N	Not exempt				98
GP	Gasoline (IMPG	miles per c	N	Not exempt				98
GP	Gasoline (IMPG	miles per c	N	Not exempt				100
GP	Gasoline (IMPG	miles per c	N	Not exempt				98
GP	Gasoline (IMPG	miles per c	N	Not exempt				107
GP	Gasoline (IMPG	miles per c	N	Not exempt				89
GP	Gasoline (IMPG	miles per c	N	Not exempt				89
GP	Gasoline (IMPG	miles per c	N	Not exempt				89
GP	Gasoline (IMPG	miles per c	N	Not exempt				90
GP	Gasoline (IMPG	miles per c	N	Not exempt				99
GP	Gasoline (IMPG	miles per c	T	Truck				
GP	Gasoline (IMPG	miles per c	T	Truck				
GP	Gasoline (IMPG	miles per c	T	Truck				
GP	Gasoline (IMPG	miles per c	T	Truck				
DU	Diesel, ultr	MPG	miles per c	T	Truck			
GP	Gasoline (IMPG	miles per c	T	Truck				
DU	Diesel, ultr	MPG	miles per c	T	Truck			

4Dr Lugg Htchbk P2Htchbk Lu Annual Fuel EPA Calc Comment City2 FE (Hwy2 Fue Comb2 Fuel City2 Unavailable

			2625	2625SC03 and Cold CO tests are from Audi R8 configuration 0 o
			2801	2801SC03 and Cold CO tests are from Audi R8 configuration 0 o
			2801	2801 updated with 2010 unit price of \$2.80
			2801	2801 updated to 2010 unit price of \$2.80
			1751	1751 corrected the number of forward gears to 6...updated with 20
			2625	2625SC03 and Cold CO tests are originally from worse case Aud
			2801	2801SC03 and Cold CO tests are from Audi R8 worse case confi
			2625	2625SC03 and Cold CO tests are from Audi R8 worse case confi
			2999	2999SC03 and Cold CO tests are from Audi R8 worse case confi
			1617	1617 updated to 2010 unit price of \$2.80
			1827	1827 update with 2010 unit price of \$2.80
			1827	1827 update with 2010 unit price of \$2.80
			1680	1680 update with 2010 unit price of \$2.80
			1999	1999 updated with 2010 unit price of \$2.80
			2209	2209 updated with 2010 unit price of \$2.80
			2470	2470 updated with 2010 unit price of \$2.80
			2100	2100 updated with 2010 unit price of \$2.80
	74	13	1751	1751 corrected number of forward gears to 6...updated with 2010 u
			1680	1680 added manuf confirmatory tests for Eos 2.0SA test group.....
12			1617	1617 updated to 2010 unit price of \$2.80
12			1827	1827 update with 2010 unit price of \$2.80
12			1680	1680 update with 2010 unit price of \$2.80
13			1999	1999 updated with 2010 unit price of \$2.80
13			1999	1999 Corrected trans code to S7 updated with 2010 unit price
13			1680	1680 CORRECTED SALES VOLUME FOR THIS CC MODEL, SE
13			1680	1680 mauf confirmatory tests added for Eos ...2.0SA test group....
	94	15	1680	1680 added manuf confirmatory tests for SULEV Eos.....updated
	94	15	1554	1554 this is a double clutch transmission and it has no hydrolic tor
16			1680	1680 corrected manuf code, the manuf confirmatory tests for the E
16			1554	1554 this is a double clutch transmission and it has no hydrolic tor
16			1911	1911
16			2335	2335 updated with 2010 fuel price of \$2.80
16			1999	1999 updated with 2010 unit price of \$2.80
15			2335	2335 updated with 2010 fuel price of \$2.80
16			2625	2625 update with 2010 unit price of \$2.80
15			2335	2335 updated with 2010 fuel price of \$2.80
20			1751	1751 ..Updated with \$2.80 unit price
20			1751	1751 ...updated with 2010 unit price of \$2.80
20			1751	1751 corrected number of forward gears to 6...updated with 2010 u
28			1827	1827 update with 2010 unit price of \$2.80
34			1999	1999 updated with 2010 unit price of \$2.80
			1999	1999 corrected to use derived 5-cycle label method.....updated
			1999	1999 corrected to use derived 5-cycle method for label.....upda
			2100	2100 Corrected number of forward gears to 6 from 1.....update
			2801	2801 updated with 2010 unit price of \$2.80
			2025	2025 updated with 2010 unit fuel price of \$2.70 Diesel
			2100	2100 changed to derived 5 cycle label calculation.....updated 2
			2025	2025 updated with 2010 unit fuel price of \$2.70 Diesel

Model	Category	Year	Make	Model	Price	Release Date	FE L	Placehold	Unique La
1	trans, updated with 2010 unit price of \$2.80	2	Two Seatecar	Vehicle Sp	5/25/2009	1866			N
2		2	Two Seatecar	Vehicle Sp	5/25/2009	1867			N
2		2	Two Seatecar	Derived 5-	6/2/2009	1885			N
2		2	Two Seatecar	Derived 5-	6/2/2009	1886			N
2		2	Two Seatecar	Vehicle Sp	6/5/2009	1894			N
2		2	Two Seatecar	Vehicle Sp	5/25/2009	1850			N
2		2	Two Seatecar	Vehicle Sp	5/25/2009	1852			N
2		2	Two Seatecar	Vehicle Sp	5/25/2009	1851			N
2		2	Two Seatecar	Vehicle Sp	5/25/2009	1853			N
2		2	3Subcompacar	Derived 5-	6/3/2009	1869			N
2		2	3Subcompacar	Derived 5-	6/3/2009	1873			N
2		2	3Subcompacar	Derived 5-	6/3/2009	1872			N
2		2	3Subcompacar	Derived 5-	6/3/2009	1876			N
2		2	3Subcompacar	Vehicle Sp	7/22/2009	1895			N
2		2	3Subcompacar	Vehicle Sp	5/29/2009	1861			N
2		2	3Subcompacar	Vehicle Sp	5/29/2009	1862			N
2		2	3Subcompacar	Vehicle Sp	6/3/2009	1891			N
2		2	3Subcompacar	Vehicle Sp	6/5/2009	1893			N
2		2	3Subcompacar	Vehicle Sp	6/18/2009	1915			N
2		2	4Compact Ccar	Derived 5-	6/3/2009	1868			N
2		2	4Compact Ccar	Derived 5-	6/3/2009	1871			N
2		2	4Compact Ccar	Derived 5-	6/3/2009	1874			N
2		2	4Compact Ccar	Vehicle Sp	6/3/2009	1889			N
2		2	4Compact Ccar	Vehicle Sp	6/3/2009	1890			N
2		2	4Compact Ccar	Vehicle Sp	6/12/2009	1905			N
2		2	4Compact Ccar	Vehicle Sp	6/18/2009	1916			N
2		24	Compact Ccar	Vehicle Sp	6/18/2009	3013			N
2		2	4Compact Ccar	Vehicle Sp	7/22/2009	1909			N
2		2	Compact Ccar	Vehicle Sp	6/18/2009	3014			N
2		2	4Compact Ccar	Vehicle Sp	7/22/2009	1908			N
2		2	5Midsize Ccar	Derived 5-	8/7/2009	2060			N
2		2	5Midsize Ccar	Derived 5-	5/29/2009	1859			N
2		2	5Midsize Ccar	Vehicle Sp	6/3/2009	1887			N
2		2	5Midsize Ccar	Derived 5-	5/29/2009	1858			N
2		2	5Midsize Ccar	Derived 5-	6/10/2009	1875			N
2		2	6Large Carscar	Derived 5-	5/29/2009	1857			N
2		2	7Small Staticar	Vehicle Sp	6/12/2009	2556			N
2		2	7Small Staticar	Vehicle Sp	6/12/2009	2557			N
2		2	7Small Staticar	Vehicle Sp	6/5/2009	1892			N
2		2	7Small Staticar	Derived 5-	6/3/2009	1870			N
2		2	8Midsize Stcar	Vehicle Sp	6/3/2009	1888			N
2		2	22Special Pu	1Derived 5-	6/12/2009	1930			N
2		2	22Special Pu	1Derived 5-	6/12/2009	1931			N
2		2	23Special Pu	1Vehicle Sp	6/11/2009	1965			N
2		2	23Special Pu	1Derived 5-	5/29/2009	1863			N
2		2	23Special Pu	1Vehicle Sp	7/22/2009	1966			N
2		2	23Special Pu	1Derived 5-	6/12/2009	1929			N
2		2	23Special Pu	1Vehicle Sp	7/22/2009	1967			N

[illegible]

Device	Var	Valve	Energy	St	Energy	St	#	Batterie	Battery	Ty	Battery	Ty	Total	Volt	Batt	Energy	Batt	Spec
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Reg No	Wt (kg)	Regent #	Capacit	Regen Br	Regen Br	Regen Br	Driver Cnt	Fuel Cell I	Usable H2	Fuel Cell C
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2017-FFP_001158

EPA.com	VERIFY	Model Yr	Mfr Name	Division	Carline	Verify Mfr Index (Mo	Eng Displ	# Cyl
		2010	Audi	Volkswage	GTI	ADX	56	2.0 4
		2010	Audi	Volkswage	JETTA	ADX	55	2.0 4

Trans as I	City FE (G	Hwy FE (C	Comb FE	City Unad	Hwy Unad	Comb Unad	Guzzler?	Air Aspir	Air Aspira
Manual(M	21	31	25	26.0803	41.521	31.3218		TC	Turbochar
Manual(M	21	31	25	26.0803	41.521	31.3218		TC	Turbochar

Trans Des	Trans, Ot	# Gears	Trans Loc	Trans Cre	Drive Sys	Drive Des	Max Ethar	Max Biodi
M	Manual	6N	N	F		2-Wheel Drive, Front		
M	Manual	6N	N	F		2-Wheel Drive, Front		

Range1 - I	Fuel Usag	Fuel Usag	Fuel Unit	Fuel Unit	Gas Guzz	Gas Guzz	2Dr Pass	2Dr Lugg	4Dr Pass
GP	Gasoline (IMPG		miles per çN		Not exempt				
GP	Gasoline (IMPG		miles per çN		Not exempt				91

4Dr Lugg	Htchbk Pa	Htchbk Lu	Annual FuEPA Calc	Comment	City2 FE (Hwy2 Fue Comb2 FuCity2 Una
	94	15	1680	1680added manuf confirmatory tests for SULEV Eos.....updated	
16			1680	1680corrected manuf code, the manuf confirmatory tests for the E	

Model	Year	Class	Engine	Fuel	Unit	Price	Notes
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		with 2010 unit fuel price of \$2.80
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		changed TG name to correctly reflect PZEV TGs
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		SIDI;
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		os in the2.03SA test group were added
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		updated with 2010 unit fuel price of \$2.80
2010	2.03SA	PZEV	4-cyl	Gasoline	2.80		Corrected TG na

File Name	Class	Exclusions	Category	Model	Year	Release Date	DEPA FE L	Placeholder	Unique	Label
15419-21-Exclusions	2	24	Compact Ccar	Vehicle Sp	6/18/2009	3013		N		
me for PZEV configurations	2	24	Compact Ccar	Vehicle Sp	6/18/2009	3014		N		

Label Rec	Relabel	Relabel Dis	Suppress	Police/Em	Comment	Cyl Deact	Cyl Deact	Var Valve	Var Valve
N			N	N		N		Y	CONTINU
N			N	N		N		Y	CONTINU

Yr	Desc	Var	Valve	Energy	St	Energy	St	#	Batterie	Battery	Ty	Battery	Ty	Total	Volt	Batt	Energy	Batt	Spec

Reg No	Wt (kg)	Regent #	Capacit	Regen Br	Regen Br	Regen Br	Driver Cnt	Fuel Cell I	Usable H2	Fuel Cell C
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GEN#	Cap#	Div	Motor Ger	Motor Ger	Rated Mo	Fuel Mete	Fuel Metering Type 2	Desc
						Spark Ignit		
						Spark Ignit		

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: Linc Wehrly/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Thur 5/6/2010 9:04:53 PM
Subject: Volkswagen 2.0L TDI AECD Description

Ex. 7

Hello Jim:

Please find a copy of the 2011 MY Volkswagen 2.0L TDI AECD description for your review/approval in the EPA VERIFY system. There is a second document in the form of a stand-alone request for approval of the "Ki-Factors," (that is, the upward- and downward-adjustment factors for the regeneration of the DPF and the NOx adsorber). This is the document referred to as Attachment No.2 in the Table of Contents for the AECD description.

If there are any questions, please let me know.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 5/11/2010 6:53:18 PM
Subject: VW Group: Test Waiver Requests Submitted

Hello Jim,

This is just a "heads up" for the two test waiver requests I submitted.

The Jetta gets a new body for MY 2011. This is a new test group for MY 2011 (BVWXV02.0MPI). It is an updated reincarnation of the naturally aspirated 2.0l engine that was discontinued for the U.S. after MY 2006. It uses MPI fuel injection similar to the current 2.5l 5 cylinder engine. It comes equipped with either an automatic 6 speed or a manual 5 speed transmission. The Jetta is the only model planned for this test group in MY 2011. We will also be submitting 2.5l, 5 cyl. versions very soon.

Let me know if you need any more information.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Rodgers, William"
Sent: Fri 5/14/2010 3:35:03 PM
Subject: VW Test Waiver Requests
william.rodgers@vw.com

Hello Jim,

As a heads up, I have submitted 12 VW test waiver requests this morning representing two carryover 2.5L test groups. Each includes all new tests as the result of a newly designed replacement for Jetta Sedan models and revised manual transmission gearing.

Let me know if you have any questions.

Thanks,

Bill Rodgers

Engineering and Environmental Office

VOLKSWAGEN Group of America, Inc.
Rochester Hills, MI

United States

(248) 754-4219

(248) 754-4207

william.rodgers@vw.com

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To: Linc Wehrly/AA/USEPA/US@EPA; Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Mon 5/17/2010 1:32:20 PM
Subject: Road Load Determination Meeting

Hello Linc and Jim:

As we have discussed, Volkswagen representatives are scheduled to meet with you on Wednesday, June 2, 2010 at 09:30 to discuss road load determination and the responses to the questions provided in your e-mail of April 2, 2010. Our representatives are preparing a formal presentation and formulating the responses to the questionnaire.

I had previously stated that one or two people from our local office and another two or three from Germany would attend. Considering the travel time and distance for our German colleagues, I would like to know whether it would be acceptable to have them join the meeting by telephone. I would still attend in person and provide the presentation materials, with the technical experts engaged in the dialogue. I am able to set up a conference call-in number and access code.

I would appreciate your thoughts on this. Please recognize that this request should not be construed as minimizing the importance of this meeting. We look forward to a detailed discussion.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

Ex. 7

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: CN=Maria Peralta/OU=AA/O=USEPA/C=US@EPA[]

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Mon 5/17/2010 2:41:52 PM

Subject: Road Load Determination Meeting w/ VW

Hello Linc and Jim:

As we have discussed, Volkswagen representatives are scheduled to meet with you on Wednesday, June 2, 2010 at 09:30 to discuss road load determination and the responses to the questions provided in your e-mail of April 2, 2010. Our representatives are preparing a formal presentation and formulating the responses to the questionnaire.

I had previously stated that one or two people from our local office and another two or three from Germany would attend. Considering the travel time and distance for our German colleagues, I would like to know whether it would be acceptable to have them join the meeting by telephone. I would still attend in person and provide the presentation materials, with the technical experts engaged in the dialogue. I am able to set up a conference call-in number and access code.

I would appreciate your thoughts on this. Please recognize that this request should not be construed as minimizing the importance of this meeting. We look forward to a detailed discussion.

Best regards,
Len

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To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: CN=Maria Peralta/OU=AA/O=USEPA/C=US@EPA[]

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Mon 5/17/2010 2:41:52 PM

Subject: Road Load Determination Meeting w/ VW

Hello Linc and Jim:

As we have discussed, Volkswagen representatives are scheduled to meet with you on Wednesday, June 2, 2010 at 09:30 to discuss road load determination and the responses to the questions provided in your e-mail of April 2, 2010. Our representatives are preparing a formal presentation and formulating the responses to the questionnaire.

I had previously stated that one or two people from our local office and another two or three from Germany would attend. Considering the travel time and distance for our German colleagues, I would like to know whether it would be acceptable to have them join the meeting by telephone. I would still attend in person and provide the presentation materials, with the technical experts engaged in the dialogue. I am able to set up a conference call-in number and access code.

I would appreciate your thoughts on this. Please recognize that this request should not be construed as minimizing the importance of this meeting. We look forward to a detailed discussion.

Best regards,
Len

—

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Mon 5/17/2010 2:57:58 PM
Subject: Accepted: Road Load Determination Meeting w/ VW

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 5/24/2010 8:26:02 PM
Subject: Q& tests

Bob, can you send us a note saying VW accepts the FE values of the Audi Q7 EPA tests for our records?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 5/25/2010 12:50:58 PM
Subject: RE: Q& tests

Audi accepts the fuel economy values from the confirmatory tests for vehicle B3UG-TAQ.

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Monday, May 24, 2010 4:26 PM
To: Hart, Robert (VWoA)
Subject: Q& tests

Bob, can you send us a note saying VW accepts the FE values of the Audi Q7 EPA tests for our records?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division

United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: [Ex. 7] Joel Ball/AA/USEPA/US@EPA; David Good/AA/USEPA/US@EPA[]; David Good/AA/USEPA/US@EPA[]
Cc: [Ex. 7]
From: [Ex. 7] @ARB
Sent: Tue 5/25/2010 2:33:44 PM
Subject: RE: VWGoA - Useful Life Vehicles for MY2005
[mailto:\[Ex. 7\]](mailto:[Ex. 7])
<http://www.vw.com>
<http://www.audiusa.com>

[Ex. 7]

When are these test groups required to be completed? What procurement area are you using for the high mileage vehicles?

[Ex. 7]

California Environmental Protection Agency

Air Resources Board

In-Use Compliance Section

[Ex. 7]

From: [Ex. 7]
Sent: Tuesday, May 25, 2010 7:02 AM
To: Ball.Joel@epamail.epa.gov; Good.David@epamail.epa.gov; [Ex. 7]@ARB
Cc: [Ex. 7]
Subject: VWGoA - Useful Life Vehicles for MY2005

Hello Gentlemen,

We have had difficulties to find the full useful life vehicles for three test groups in MY2005.

For the procurement of the vehicles is our contractor California-Environmental-Engineering (CEE) responsible.

The following describes the actual situation of the test groups involved.

- Test-Group 5VWXT03.2225

There are 4 vehicles to be tested in this group, 2 vehicles warm and 2 cold weather.

So far we have tested following vehicles:

- VIN# **Ex. 6** from CA with a mileage of 55,470 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from MI with a mileage of 54,342 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from CO with a mileage of 62,000 miles__Vehicle passed all Standards

In order to get the 4th vehicle with a odometer over 90,000 miles for the full useful life test, we already have sent a 4th mailing out without getting a successful respond.

The highest mileage that we have on a vehicle available for this test group at the moment is 81,000 miles.

- Test-Group 5VWXV02.0223

There are 4 vehicles to be tested in this group.

So far we have tested following vehicles:

- VIN# **Ex. 6** from CA with a mileage of 61,565 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from MI with a mileage of 52,973 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from CO with a mileage of 52,000 miles__Vehicle passed all Standards

In order to get the 4th vehicle with a odometer over 90,000 miles for the full useful life test, we already have sent a 3rd mailing out without getting a successful respond.

The highest mileage that we have on a vehicle available for this test group at the moment is 73,200 miles.

- Test-Group 5VWXV02.0224

There are 4 vehicles to be tested in this group.

So far we have tested following vehicles:

- VIN# **Ex. 6** from CA with a mileage of 53,697 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from MI with a mileage of 50,109 miles__Vehicle passed all Standards
- VIN# **Ex. 6** from CO with a mileage of 60,000 miles__Vehicle passed all Standards

In order to get the 4th vehicle with a odometer over 90,000 miles for the full useful life test, we already have sent a 4th mailing out without getting a successful respond.

The highest mileage that we have on a vehicle available for this test group at the moment is 61,000 miles.

At this moment we would ask you to accept for the above mentioned test groups for the full useful life tests the vehicles with the highest mileage available at present.

Please let me know as soon as you can what your decision/advise is concerning this matter. If I don't hear from you otherwise by beginning of next week I'll assume that you agree with me procuring and testing the vehicles with the mileage mentioned above.

Thank you for your understanding and support,

Ex. 7

Ex. 7

Ex. 7

<http://www.vw.com>

<http://www.audiusa.com>

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 5/26/2010 11:32:48 AM
Subject: VW Group: Audi A8 - B3UH-DAQ - Results Accepted

Hello Jim,

We finally received the results for the Audi A8 (B3UH-DAQ) in Verify. Audi has accepted the results. I asked Vince Mazaitis to release the car this morning.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 5/27/2010 6:09:32 PM
Subject: Supplemental Information for Vehicles Selected for Confirmatory Testing

Hello Jim,

I have uploaded the required Supplemental Information for Bentley vehicle I.D. BY61021 cfigs 0 and 4 and VW vehicle I.D. VW416 80218 cfig 0.

There are also shift tables uploaded for the FTP and HFET for VW416 80218.

This VW is in an Audi test group and the required shift tables were not listed in the Audi database in Verify.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 5/27/2010 7:05:00 PM
Subject: Re: Supplemental Information for Vehicles Selected for Confirmatory Testing

Thanks for the info. To confirm, are you saying that the shift tables are now in Verify?

I informed the lab to check if it looks okay.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 05/27/2010 02:13 PM
Subject: Supplemental Information for Vehicles Selected for Confirmatory Testing

Hello Jim,

I have uploaded the required Supplemental Information for Bentley vehicle I.D. BY61021 cfigs 0 and 4 and VW vehicle I.D. VW416 80218 cfig 0.

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Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Fri 5/28/2010 12:07:36 PM
Subject: RE: Supplemental Information for Vehicles Selected for Confirmatory Testing

Hello Jim,

In order for the lab to have the correct manual transmission shift tables, Verify has a section under the Confirmatory Test Decision page where new mfr. shift tables can be uploaded. This doesn't happen very often because most new cars use existing shift tables that have been in the lab database since CFEIS.

Except for the standard EPA ones, shift tables are manufacturer specific. In this case the (VW) shift tables existed, just not in the Audi specific section of the database.

I downloaded the required VW shift tables using my Volkswagen login, made the necessary modifications to the shift table reports to turn them into input files and resubmitted them through my Audi login.

Best regards,

Bob Hart

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Thursday, May 27, 2010 3:05 PM
To: Hart, Robert (VWoA)
Subject: Re: Supplemental Information for Vehicles Selected for Confirmatory Testing

Thanks for the info. To confirm, are you saying that the shift tables are now in Verify?

I informed the lab to check if it looks okay.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946

snyder.jim@epa.gov

From:

"Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To:

Jim Snyder/AA/USEPA/US@EPA

Date:

05/27/2010 02:13 PM

Subject:

Supplemental Information for Vehicles Selected for Confirmatory Testing

Hello Jim,

I have uploaded the required Supplemental Information for Bentley vehicle I.D. BY61021 cfigs 0 and 4 and VW vehicle I.D. VW416 80218 cfig 0.

There are also shift tables uploaded for the FTP and HFET for VW416 80218.

This VW is in an Audi test group and the required shift tables were not listed in the Audi database in Verify.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
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Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; inc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; artin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; om Anderson/AA/USEPA/US@EPA;Maria Peralta/AA/USEPA/US@EPA[]; aria Peralta/AA/USEPA/US@EPA[]

From: "Kata, Leonard"

Sent: Tue 6/1/2010 7:50:38 PM

Subject: RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-C126/AA-OTAQ-OFFICE@EPA)
[EPA Road Load Determination Meeting.pdf](#)
leonard.kata@vw.com

To all:

Attached is an advance copy of the presentation that VW will discuss tomorrow during our meeting on road load determination. Several participants will join by telephone from Germany, so it would be appreciated if a speaker telephone is available. The call-in details are provided below.

Dr. Christoph Kohnen and I will attend the meeting in person. We expect the following participants, representing Volkswagen and Audi to join by telephone:

Mr. Kai Behlau

Mr. Stuart Johnson

Mr. Andreas Kopp

Mr. Juergen Peter

Mr. Alexander Riedel

Dr. Klaus Rohde-Brandenburger

Dr. Holger Tiedt

Audio Conference Information:

Bridge Name: vwoaa500

Participant Code: Ex. 6

Bridge Dial-in Number: Ex. 6

Best regards,

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

<<EPA Road Load Determination Meeting.pdf>>

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Monday, May 17, 2010 10:42 AM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; Kata, Leonard; Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Healy.Stephen@epamail.epa.gov; Anderson.Tom@epamail.epa.gov

Cc: Peralta.Maria@epamail.epa.gov

Subject: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-C126/AA-OTAQ-OFFICE@EPA)

When: Wednesday, June 02, 2010 9:30 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).

Where: C126

Invitation: Road Load Determination Meeting w/ VW

06/02/2010 -

Chair:

Jim Snyder/AA/USEPA/US

Sent By:

Snyder.Jim@epamail.epa.gov

Location:

C126

Rooms:

AA-C126/AA-OTAQ-OFFICE@EPA

Snyder.Jim@epamail.epa.gov

Jim Snyder has invited you to a meeting. You have not yet responded.

Required:

Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Leonard.Kata@vw.com, Linc Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA

Optional:

Maria Peralta/AA/USEPA/US@EPA

Description

Hello Linc and Jim:

As we have discussed, Volkswagen representatives are scheduled to meet with you on Wednesday, June 2, 2010 at 09:30 to discuss road load determination and the responses to the questions provided in your e-mail of April 2, 2010. Our representatives are preparing a formal presentation and formulating the responses to the questionnaire.

I had previously stated that one or two people from our local office and another two or three from Germany would attend. Considering the travel time and distance for our German colleagues, I would like to know whether it would be acceptable to have them join the meeting by telephone. I would still attend in person and provide the presentation materials, with the technical experts engaged in the dialogue. I am able to set up a conference call-in number and access code.

I would appreciate your thoughts on this. Please recognize that this request should not be construed as minimizing the importance of this meeting. We look forward to a detailed discussion.

Best regards,
Len

— << File: ATT244576.htm >> << File: c104150.ics >> << File: ecblank.gif >> << File: pic00987.gif >>

To: [Ex. 7]@vw.com]
Cc: [redacted]
Bcc: [redacted]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 6/1/2010 8:28:21 PM
Subject: RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-C126/AA-OTAQ-OFFICE@EPA)
[Ex. 7]@vw.com

We're scheduled for the big room by the lobby so phone shouldn't be a problem .

I've had some confusion getting the projector system going in that room so I'll grab a backup unless you're bringing one,

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA, Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Linc Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA, Maria Peralta/AA/USEPA/US@EPA
Date: 06/01/2010 03:53 PM
Subject: RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-C126/AA-OTAQ-OFFICE@EPA)

To all:

Attached is an advance copy of the presentation that VW will discuss tomorrow during our meeting on road load determination. Several participants will join by telephone from Germany, so it would be appreciated if a speaker telephone is available. The call-in details are provided below.

[Ex. 7] and I will attend the meeting in person. We expect the following participants, representing Volkswagen and Audi to join by telephone:

Ex. 7

Audio Conference Information:

Non-Responsive

Best regards,

[Ex. 7]

Ex. 7

Engineering and Environmental Office
Volkswagen Group of America, Inc.

Ex. 7

E-Mail: **Ex. 7**@vw.com

<<EPA Road Load Determination Meeting.pdf>>

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Monday, May 17, 2010 10:42 AM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; **Ex. 7**

Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Healy.Stephen@epamail.epa.gov;

Anderson.Tom@epamail.epa.gov

Cc: Peralta.Maria@epamail.epa.gov

Subject: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-C126/AA-OTAQ-OFFICE@EPA)

When: Wednesday, June 02, 2010 9:30 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).

Where: C126

Invitation: Road Load Determination Meeting w/ VW

06/02/2010 -

Chair:

Jim Snyder/AA/USEPA/US

Sent By:

Snyder.Jim@epamail.epa.gov

Location:

C126

Rooms:

AA-C126/AA-OTAQ-OFFICE@EPA

Snyder.Jim@epamail.epa.gov

Jim Snyder has invited you to a meeting. You have not yet responded.

Required:

Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, **Ex. 7**@vw.com, Linc

Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom

Anderson/AA/USEPA/US@EPA

Optional:

Maria Peralta/AA/USEPA/US@EPA

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Ex. 7

__ << File: ATT244576.htm >> << File: c104150.ics >> << File: ecblank.gif >> << File: pic00987.gif >>
[attachment "EPA Road Load Determination Meeting.pdf" deleted by Jim Snyder/AA/USEPA/US]

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 6/1/2010 8:52:25 PM
Subject: RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in AA-
Non-Responsive
Ex. 7

Jim –

I will bring a small projector.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, June 01, 2010 4:28 PM
To: Ex. 7
Subject: RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in Non-Responsive
Non-Responsive

Non-Responsive

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:

Ex. 7

To:

Jim Snyder/AA/USEPA/US@EPA, Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Linc Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA, Maria Peralta/AA/USEPA/US@EPA

Date:

06/01/2010 03:53 PM

Subject:

RE: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in **Non-Responsive**

Non-Responsive

To all:

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Ex. 7

Audio Conference Information:

Non-Responsive

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

<<EPA Road Load Determination Meeting.pdf>>

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Monday, May 17, 2010 10:42 AM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; **Ex. 7**

Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Healy.Stephen@epamail.epa.gov;

Anderson.Tom@epamail.epa.gov

Cc: Peralta.Maria@epamail.epa.gov

Subject: Invitation: Road Load Determination Meeting w/ VW (Jun 2 09:30 AM EDT in **Non-Responsive**

Non-Responsive

When: Wednesday, June 02, 2010 9:30 AM-11:30 AM (GMT-05:00) Eastern Time (US & Canada).

Where: **Non-Responsive**

Invitation: Road Load Determination Meeting w/ VW

06/02/2010 -

Chair:

Jim Snyder/AA/USEPA/US

Sent By:

Snyder.Jim@epamail.epa.gov

Location:

Non-Responsive

Rooms:

Non-Responsive

Snyder.Jim@epamail.epa.gov

Jim Snyder has invited you to a meeting. You have not yet responded.

Required:

Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, **Ex. 7** Linc

Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom

Anderson/AA/USEPA/US@EPA

Optional:

Maria Peralta/AA/USEPA/US@EPA

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Hello Linc and Jim:

As we have discussed, Volkswagen representatives are scheduled to meet with you on Wednesday, June 2, 2010 at 09:30 to discuss road load determination and the responses to the questions provided in your e-mail of April 2, 2010. Our representatives are preparing a formal presentation and formulating the responses to the questionnaire.

I had previously stated that one or two people from our local office and another two or three from Germany would attend. Considering the travel time and distance for our German colleagues, I would like to know whether it would be acceptable to have them join the meeting by telephone. I would still attend in person and provide the presentation materials, with the technical experts engaged in the dialogue. I am able to set up a conference call-in number and access code.

I would appreciate your thoughts on this. Please recognize that this request should not be construed as minimizing the importance of this meeting. We look forward to a detailed discussion.

Best regards,

Ex. 7

__ << File: ATT244576.htm >> << File: c104150.ics >> << File: ecblank.gif >> << File: pic00987.gif >>
[attachment "EPA Road Load Determination Meeting.pdf" deleted by Jim Snyder/AA/USEPA/US]

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Fri 6/4/2010 7:33:31 PM
Subject: VW Group: More Applications / Certificate Requests Submitted

Hello Jim,

I've been busy. There are Certificate requests for test groups: BADXT03.0TLF (1) / BADXV02.03UA (3) submitted. They all have the same SOP (this week) and same priority.

Whatever you can do to get them turned around quickly is greatly appreciated.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: [Ex. 7]@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 6/8/2010 4:22:16 PM
Subject: Re: Response to E10 Fuel Question

Thanks, can find out if they mix it in as a batch in the lab or by adding both into the test vehicle's fuel tank ?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: [Ex. 7]@vw.com>
Date: 06/08/2010 07:35 AM
Subject: Response to E10 Fuel Question

Hello Jim,

Here is the response I received from the cert engineer to your question about the blend procedure for the E10 fuel in the flex-fuel Bentley.

The E10 was "splash blended" using Tier2 (9 PSI) test fuel and E85 fuel in our test facility.

Let me know if this answer is sufficient.

Best regards,

Ex. 7

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Ex. 7
E-mail: [Ex. 7]@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 6/8/2010 10:30:36 PM
Subject: missing test data

Bob, for test group BADXV05.2LR8 BI see a test # listed for 50F test but no emission data. Looks like its missing.

Test Number BADX10006239 Exhaust/Evaporative Test Number Link
Test Procedure 52 - Fed. fuel 50 F exh. Test Fuel Type 61 - Tier 2 Cert Gasoline
Test Date 2009-08-20 DF Type Mfr. Determined
4WD Dyno No State of Charge Delta
MFR Test Comment 4k FED. FUEL 50°F FTP - Tested as AUDI R8 SPYDER CONVERTIBLE 6 spd. autom.
2 dr. EDV - ETW: 4250
None

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 6/9/2010 1:14:59 PM
Subject: RE: missing test data

Hello Jim,

The test results for the 50'F FTP were in the database, I just forgot to put standards for it in the testgroup submission file. Results won't be listed in the Cert Summary Info Report without them.

I have corrected it and will upload the corrected application as soon as I have processed it.

We received the OBD approval for the Q7 diesel last night, so that is my priority before the test group above. There will be two 3.0l diesel applications. The one ending in 3UG (Audi Q7 - LDT4) is the priority. Except for the actual tests and LDT3 designation for the Touareg, the two diesel application are basically the same.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, June 08, 2010 6:31 PM
To: Hart, Robert (VWoA)
Subject: missing test data

Bob, for test group BADXV05.2LR8 BI see a test # listed for 50F test but no emission data. Looks like its missing.

Test Number	BADX10006239	Exhaust/Evaporative Test Number Link	
Test Procedure	52 - Fed. fuel 50 F exh.	Test Fuel Type	61 - Tier 2 Cert Gasoline
Test Date	2009-08-20	DF Type	Mfr. Determined
4WD Dyno	No	State of Charge Delta	
MFR Test Comment	4k FED. FUEL 50°F FTP - Tested as AUDI R8 SPYDER CONVERTIBLE 6 spd. autom. 2 dr. EDV -		
ETW: 4250			
None			

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Rodgers, William" [William.Rodgers@vw.com]
From: "Hart, Robert (VWoA)"
Sent: Tue 6/15/2010 7:21:08 PM
Subject: VW Group: Applications and Certificate Requests Submitted

Hello Jim,

This is just a "heads-up" for a couple of certificate requests. The application and certificate request for MY 2011 VW test group BVWXV02.0MPI has been submitted earlier today. Submissions for test group BVWXV02.5259 will be completed by Bill Rodgers by Wednesday morning at the latest.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: []
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Rodgers, William" [William.Rodgers@vw.com]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 6/15/2010 9:29:23 PM
Subject: Re: VW Group: Applications and Certificate Requests Submitted

Sorry, I should have clarified that I was referring to the Bentley FFV confirmatory testing.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Jim Snyder/AA/USEPA/US
To: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
Cc: "Rodgers, William" <William.Rodgers@vw.com>
Date: 06/15/2010 04:42 PM
Subject: Re: VW Group: Applications and Certificate Requests Submitted

Okay.

Ben Haynes in the lab reminded me that you need give us instructions if you want to any "learning procedure" performed between test fuels after we drain and fill different fuels on the confirmatory vehicle.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Rodgers, William" <William.Rodgers@vw.com>
Date: 06/15/2010 03:21 PM
Subject: VW Group: Applications and Certificate Requests Submitted

Hello Jim,

This is just a "heads-up" for a couple of certificate requests. The application and certificate request for MY

2011 VW test group BVWXV02.0MPI has been submitted earlier today. Submissions for test group BVWXV02.5259 will be completed by Bill Rodgers by Wednesday morning at the latest.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: CN=David Good/OU=AA/O=USEPA/C=US@EPA[]
Cc: [Ex. 6] N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Mary Manners/OU=AA/O=USEPA/C=US@EPA;richard.thomas@vw.com;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA; [Ex. 6] N=Mary Manners/OU=AA/O=USEPA/C=US@EPA;richard.thomas@vw.com;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA; [Ex. 6] richard.thomas@vw.com;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA; [Ex. 6] **Ex. 6** N=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA; [Ex. 6] [Ex. 6] erifyhelp@csc.com[]
From: CN=Kassem Abbas/OU=AA/O=USEPA/C=US
Sent: Wed 6/16/2010 7:51:48 PM
Subject: Re: Fw: Business Rule Relaxation for Data Substitution Five Cycle Method Labels - Please work with VW to relax the business rule when they process these six labels

CSC,
I approve relaxing the business rule.
Thanks

Kassem Abbas
IT Specialist
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
(734) 214 4337 abbas.kassem@epa.gov

From: David Good/AA/USEPA/US
To: verifyhelp@csc.com
Cc: Kassem Abbas/AA/USEPA/US@EPA, Robert Peavyhouse/AA/USEPA/US@EPA, Mary Manners/AA/USEPA/US@EPA, [Ex. 6] richard.thomas@vw.com, Jim Snyder/AA/USEPA/US@EPA
Date: 06/16/2010 03:07 PM
Subject: Fw: Business Rule Relaxation for Data Substitution Five Cycle Method Labels - Please work with VW to relax the business rule when they process these six labels

[Ex. 6] and all,

Heads up

Please try to work with VW so that this temporary relaxing of the business rule goes as smoothly as possible. VW especially needs the labels for a newly redesigned 2011 Jetta model which VW executives will be introducing at an auto show this weekend or so (so it needs FE Label values in Verify).

It is OK with me for CSC to relax the business rule for these models.

[There will be quite a few more of these cases (for VW and other manufacturers) thru the summer.]

Thanks

----- Forwarded by David Good/AA/USEPA/US on 06/16/2010 02:56 PM -----

From: "Thomas, Richard" <Richard.Thomas@vw.com>

To: David Good/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, "Kata, Leonard" <Leonard.Kata@vw.com>
Date: 06/16/2010 02:47 PM
Subject: FW: Business Rule Relaxation for Data Substitution Five Cycle Method Labels

Hi Dave;

We have at least six more 2011 general fuel economy labels I will have to submit to Verify this week for which data substitution will be used for a 5-cycle label. The business rule will not allow me to do this without special after hours handling and with assistance from the Verify help desk. Did you make any progress to rectify this issue?

Best regards,
Richard

From: Thomas, Richard
Sent: Thursday, June 10, 2010 3:43 PM
To: Good.David@epamail.epa.gov
Cc: Kata, Leonard; Kohnen, Christoph (VWGoA)
Subject: Business Rule Relaxation for Data Substitution Five Cycle Method Labels

Hello Dave;

It has become a difficult after hours operation and task for me to submit some of our 2011 general fuel economy labels due to the current business rule which prevents us from entering an index if we have more than one vehicle ID within the five tests grouping when we make data substitution from worse case Cold Co and SC03 tests. The Verify help desk has us call them at 5 o'clock and he in turn must contact the DBA to turn off this business rule before I enter the indexes. Then, after several minutes we must check the in box to see if the indexes have been accepted and then notify the help desk again so they can turn the business rule back on.

I will have anywhere from 10 to 15 more 2011 indexes where we will substitute worse case Cold CO and SC03 tests for a general label calculations. I understand that this was to be changed with an EPA request of the contractor back in December 2009. We are doing everything to comply with the intent of the 5-cycle method for the general fuel economy labeling rule and we have to do it after normal business hours. The Verify system was intended to make our data entry more productive and streamlined and this business rule is not helping. Is there some way we can have this business rule turned off without making it too difficult for the contractor.

Best regards,
Richard E. Thomas
VOLKSWAGEN GROUP OF AMERICA, INC.
3800 Hamlin Road
Auburn Hills, MI 48326
Engineering and Environmental Office (EEO)
Phone: 248 754-4213
Fax: 248 754-4207
Richard.Thomas@VW.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 6/21/2010 7:49:22 PM
Subject: VW Group: Certificate Request Submitted and Remaining Certification for MY 2011

Hello Jim,

I submitted certificate request for carryover test group BVWXV02.03SA.

Here's what's left for the Volkswagen Group initial certification for MY 2011.

Audi test group:

BADXV04.2375 – carryover application to be submitted sometime in the next two to three weeks

Bentley test group:

BBEXV06.84LA – currently waiting for confirmatory test decision (Mulsanne)

Lamborghini Test Group:

BNLXV06.5L83 – waiting for OBD approval

Volkswagen test groups:

BVWXV02.0U5N – test waiver requests coming this or next week (new Jetta model in this TDI (diesel) test group)

BVWXV02.03PA – test waiver request coming for CC model with manual transmission this week.

BVWXV03.6U46 – carryover test group to be submitted sometime in this week – waiting for OBD approval

BVWXT03.6U76 – carryover test group to be submitted sometime in the next four weeks

BVWXT03.0HEV – VW's first hybrid – waiting for OBD approval and test results – expected SOP in September

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 6/21/2010 8:35:48 PM
Subject: Re: VW Group: Certificate Request Submitted and Remaining Certification for MY 2011

Thanks for the summary.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 06/21/2010 03:50 PM
Subject: VW Group: Certificate Request Submitted and Remaining Certification for MY 2011

Hello Jim,

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Here's what's left for the Volkswagen Group initial certification for MY 2011.

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BADXV04.2375 – carryover application to be submitted sometime in the next two to three weeks

Bentley test group:
BBEXV06.84LA – currently waiting for confirmatory test decision (Mulsanne)

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BNLXV06.5L83 – waiting for OBD approval

Volkswagen test groups:
BVWXV02.0U5N – test waiver requests coming this or next week (new Jetta model in this TDI (diesel) test group)
BVWXV02.03PA – test waiver request coming for CC model with manual transmission this week.
BVWXV03.6U46 – carryover test group to be submitted sometime in this week – waiting for OBD approval
BVWXT03.6U76 – carryover test group to be submitted sometime in the next four weeks
BVWXT03.0HEV – VW's first hybrid – waiting for OBD approval and test results – expected SOP in September

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 6/23/2010 3:23:31 PM
Subject: VW Group: Certificate Request for MY 2011 VW Test Grp: BVWXV03.6U46 Submitted

Hello Jim,

Just a "heads up" for a certificate request submitted for MY 2011 VW Test Grp: BVWXV03.6U46.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Linc Wehrly/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im
Snyder/AA/USEPA/US@EPA[]
Cc: **Ex. 7**
From:
Sent: Fri 6/25/2010 8:23:29 PM
Subject: Meeting to Discuss GHG Calculation Procedure

Hello Linc and Jim:

As mentioned during our recent meeting on road load determination, VW would like to meet with you to discuss our initial attempt at some of the compliance calculations for the GHG rule.

Our suggestion is to begin with the Early Credit Calculation for CO2 (40 CFR 86.1867-12(a)). We will present you with our understanding of the rules pertaining to the four pathway approaches and the input data necessary to accomplish the calculations. We will follow with presentation of an example of the early CO2 credit calculation and comparison of the pathway results.

My proposal would be to meet on Thursday, July 1, 2010 at 09:30, provided that you are available. If not, please let me know what your schedules may allow.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 6/28/2010 8:07:52 PM
Subject: Another Confirmatory Test Waiver Request

Hello Jim,

Just another "heads-up" for a test waiver request – VW Test Group BVWXV02.03PA (BIN 3 / LEVII SULEV).

We're just adding a manual 6 speed VW CC model to the test group before certification. This is not a new worst case. It's just 5-cycle fuel economy tests. This configuration already exists in a BIN 5 / LEVII ULEV test group.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 6/28/2010 8:38:16 PM
Subject: Re: Another Confirmatory Test Waiver Request

Thanks for the note. Saves me time sorting it out.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 06/28/2010 04:08 PM
Subject: Another Confirmatory Test Waiver Request

Hello Jim,

Just another "heads-up" for a test waiver request – VW Test Group BVWXV02.03PA (BIN 3 / LEVII SULEV). We're just adding a manual 6 speed VW CC model to the test group before certification. This is not a new worst case. It's just 5-cycle fuel economy tests. This configuration already exists in a BIN 5 / LEVII ULEV test group.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: [redacted] **Ex. 7** [redacted] inc Wehrly/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
Cc: [redacted] **Ex. 7**
From: [redacted]
Sent: Tue 6/29/2010 5:18:29 PM
Subject: Invitation: Volkswagen Meeting to Discuss Early CO2 Credit Calculations (Jul 1 11:00 AM EDT in [redacted] **Ex. 7**)

To all:

As discussed with Linc Wehrly at EPA, we are scheduled to meet on Thursday, July 1, 2010. The subject will be the early CO2 credit provisions in the EPA GHG final rule. We intend to present our understanding of the regulatory requirements and a sample calculation for the four pathway options.

Volkswagen's goal is to gain assurance that the calculation approach being considered and determination of the appropriate pathway is correct.

We did not discuss an end time, but from the Volkswagen side, we are flexible on this point.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: "Giles, Michael" [michael.giles@vw.com]; inc Wehrly/AA/USEPA/US@EPA; Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Tue 6/29/2010 5:18:29 PM
Subject: Volkswagen Meeting to Discuss Early CO2 Credit Calculations

To all:

As discussed with Linc Wehrly at EPA, we are scheduled to meet on Thursday, July 1, 2010. The subject will be the early CO2 credit provisions in the EPA GHG final rule. We intend to present our understanding of the regulatory requirements and a sample calculation for the four pathway options.

Volkswagen's goal is to gain assurance that the calculation approach being considered and determination of the appropriate pathway is correct.

We did not discuss an end time, but from the Volkswagen side, we are flexible on this point.

Best regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 7/8/2010 11:44:10 AM
Subject: Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

Hello Jim,

Can you check on the status of the signing of the Certificate for Test Group BVWXV02.0U5N (2.0l Diesel)?

Obviously, we can't get an ARB Executive Order until we submit the EPA Certificate to the ARB and their signing procedure takes considerably longer.

Any help you can provide to expedite the process will be greatly appreciated.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 7/8/2010 2:36:28 PM
Subject: Re: Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

its issued

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 07/08/2010 07:44 AM
Subject: Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

Hello Jim,

Can you check on the status of the signing of the Certificate for Test Group BVWXV02.0U5N (2.0l Diesel)? Obviously, we can't get an ARB Executive Order until we submit the EPA Certificate to the ARB and their signing procedure takes considerably longer. Any help you can provide to expedite the process will be greatly appreciated.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 7/8/2010 2:39:53 PM
Subject: RE: Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

Thanks Jim.

I guess it will just take a little time for it to register in Verify.

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Thursday, July 08, 2010 10:36 AM
To: Hart, Robert (VWoA)
Subject: Re: Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

its issued

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:
"Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To:
Jim Snyder/AA/USEPA/US@EPA

Date:
07/08/2010 07:44 AM

Subject:
Certificate for Test Group BVWXV02.0U5N - 2.0l Diesel

Hello Jim,

Can you check on the status of the signing of the Certificate for Test Group BVWXV02.0U5N (2.0l Diesel)? Obviously, we can't get an ARB Executive Order until we submit the EPA Certificate to the ARB and their signing procedure takes considerably longer. Any help you can provide to expedite the process will be greatly appreciated.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

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3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Ex. 7 @vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 7/8/2010 7:55:50 PM
Subject: Fw: SCR Workshop

Ex. 7

As one of the manufacturers with diesel vehicles using SCR aftertreatment, has VW/Audi been following the recent events in California regarding SCR systems? ARB has announced a public workshop for July 20th in regard to diesel engines and vehicles using SCR. It is unclear just how light duty will be impacted, but LD may very well follow trends set by heavy duty resulting from this workshop. EPA may be represented at this workshop. Mercedes may be asked what it would take (timing) to implement some of the proposed HD solutions in LD.

Workshop Mail out:

This Mail-out may be accessed at this link:

http://www.arb.ca.gov/msprog/mailouts/mouts_10.htm#msod

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 7/12/2010 8:00:45 PM
Subject: Running Change Requires a Revised Certificate

Hello Jim,

Another "heads up".

I just submitted a running change to add the Jetta model to diesel test group BVWV02.0U5N. A revised certificate is required. Please process it as soon as possible. The only change to the application is the addition of the Jetta model. Everything required has been uploaded.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 7/19/2010 5:55:36 PM
Subject: VW Group: Confidential Vehicle Names Question

Hello Jim,

What is the procedure for keeping a vehicle's name confidential until official release by the manufacturer?

The question comes from Lamborghini. They want to keep the commercial name of the new Lamborghini confidential until they release it during the Geneva Auto Show.

I need to know before I submit the certification documentation. It is still a week or two away, but we need to know so we can plan for whatever is necessary to accomplish it.

Does the "Introduction into Commerce Date" on the Certificate Request in the Verify System guarantee that no information will be released until that date?

I have already talked to ARB. Ex. 7 is checking with management to get their latest policy.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: [Ex. 7]@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 7/20/2010 3:46:44 PM
Subject: Re: Lamborghini Catalyst By-Pass Request

Is there supposed to be an attachment of the earlier approvals?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA, [Ex. 7]@arb.ca.gov>
Date: 07/20/2010 10:24 AM
Subject: Lamborghini Catalyst By-Pass Request

Hello Jim and [Ex. 7]

As you may be aware, I submitted documents through VERIFY and EDMS that describe the function of the exhaust system on the LB83x Lamborghini application. This system includes a bypass of the downstream catalysts under extreme operating conditions. The function is analogous to the system from a past model year Lamborghini Gallardo which was approved by EPA and ARB. Copies of the old approval documents are provided for reference.

I just wanted to send a reminder that the request is in the workflow pending agency review. Your review and response would be appreciated.

Best regards,

[Ex. 7]

Ex. 7

Engineering and Environmental Office
Volkswagen Group of America, Inc.

Ex. 7

E-Mail: [Ex. 7]@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 7/22/2010 8:07:48 PM
Subject: New Manager In-Use Emission Compliance Volkswagen Group of America
sebastian.berenz@vw.com

Hello Mrs. Sohacki,

I only want you know that I am the new manager in-use emission compliance for the Volkswagen Group of America. I'm the successor of Edward Popa and work deal for the next few years in Rochester Hills.

So if you have any issues for me, please let me know.

If there are any questions occurring, please do not hesitate to contact me.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 7/22/2010 8:12:34 PM
Subject: Re: New Manager In-Use Emission Compliance Volkswagen Group of America
sebastian.berenz@vw.com

Hi, Sebastian.

Thanks for the introduction. I look forward to working with you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 07/22/2010 04:07 PM
Subject: New Manager In-Use Emission Compliance Volkswagen Group of America

Hello Mrs. Sohacki,

I only want you know that I am the new manager in-use emission compliance for the Volkswagen Group of America. I'm the successor of Edward Popa and work deal for the next few years in Rochester Hills. So if you have any issues for me, please let me know.

If there are any questions occurring, please do not hesitate to contact me.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
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E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Fri 7/30/2010 10:22:03 PM
Subject: RE: Lamborghini Catalyst By-Pass Request
2007 request.pdf

Hello Jim:

There were a couple of pages at the end of the scanned document that included prior approvals. I have also attached a copy of the entire document that was ultimately stamped approved by EPA. Please let me know if you need anything else. I would appreciate some information on the status of this request.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, July 20, 2010 11:47 AM
To: **Ex. 7**
Subject: Re: Lamborghini Catalyst By-Pass Request

Is there supposed to be an attachment of the earlier approvals?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: **Ex. 7** @vw.com>
To: Jim Snyder/AA/USEPA/US@EPA, **Ex. 7** @arb.ca.gov>
Date: 07/20/2010 10:24 AM
Subject: Lamborghini Catalyst By-Pass Request

Hello Jim and **Ex. 7**

As you may be aware, I submitted documents through VERIFY and EDMS that describe the function of the exhaust system on the LB83x Lamborghini application. This system includes a bypass of the downstream catalysts under extreme operating conditions. The function is analogous to the system from a past model year Lamborghini Gallardo which was approved by EPA and ARB. Copies of the old approval documents are provided for reference.

I just wanted to send a reminder that the request is in the workflow pending agency review. Your review and response would be appreciated.

Best regards,

Ex. 7

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

VOLKSWAGEN of America, Inc.

Mr. Linc Wehrly
Compliance and Innovative Strategies Division
Light-Duty Vehicle Group
U.S. Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, Michigan 48105

Mr. Allen Lyons, Chief
Mobile Sources Operations Divisions
Haagen-Smit Laboratory
P.O. Box 8001
9528 Telstar Avenue
El Monte, California 91734-8001

Leonard W. Kata Name
Team Leader Title
Engineering & Env. Office Department
248-754-4204 Phone
248-754-4207 Fax
Leonard.kata@vw.com E-Mail

March 14, 2006 Date

Volkswagen of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone +1 248 754 5000
Fax +1 248 754 4930

Subject: Lamborghini Murcielago Exhaust System

Gentlemen:

On March 1, 2006, representatives of Automobili Lamborghini, S.p.A. and Volkswagen of America, Inc. participated in a telephone conference call with you to discuss the design and function of the 2007 model year Lamborghini Murcielago exhaust system. In particular, Lamborghini provided details to the agencies regarding bypass valves included in the exhaust system. The intent of the call was to provide an overview of the technical description of the system and to seek feedback from EPA and ARB.

Prior to the call, you were provided with a drawing of the Murcielago exhaust system and a document that addresses the rationale for, and function of the system.

On March 8, 2006, EPA provided telephone confirmation that the agencies had discussed the system and concluded that it is acceptable and does not qualify as a defeat device. A formal, written response was offered.

We would appreciate a more formal response. Enclosed, for reference, is a copy of the technical information previously provided by e-mail.

Sincerely,



L. W. Kata

Enclosure

Ex. 4 - CBI

Ex. 4 - CBI

To: mike.hennard@VW.com[]
Cc: CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Arvon
Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[];
N=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Jim
Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 8/4/2010 8:18:14 PM
Subject: Updated spreadsheet for M158
[M 158.xls](#)

Hi, Mike.

I've attached the updated spreadsheet for this class. As I suspected, the odometer readings were switched between M158-0024 and M158-0034. Also, I checked again and no codes were found on any of the vehicles tested at EPA.

Please forward this to the others that were at the meeting. When you have a chance, please send us a copy of the presentation.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Johnson, Stuart"
[Stuart.Johnson@vw.com]
From: "Hennard, Mike"
Sent: Thur 8/5/2010 1:33:00 PM
Subject: VW Presentations - July 29
Meeting EPA Surveillance 8AD XV03 1374 work to EPA.pdf
Surveillance 7ADXT04.2358 epa.pdf
mike.hennard@vw.com

Lynn:

As you requested, here are PDF format copies of presentation we gave in July 29th meeting at your office.

One additional question, can you supply EPA data sheet for 3.1L vehicles (similar to data sent for 4.2L vehicles).

Michael Hennard

Manager - Emissions Compliance EEO

Volkswagen Group of America

3800 Hamlin Road

Auburn Hills, MI 48326

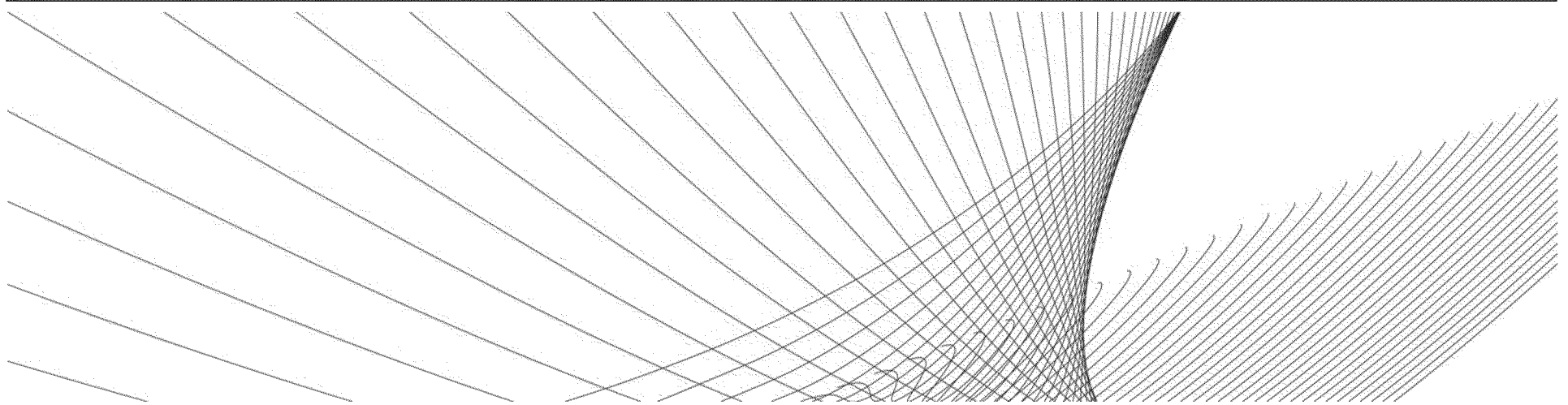
Telephone Number: 248 754 4202

Fax: 248 754 4207

mike.hennard@vw.com

VOLKSWAGEN

GROUP OF AMERICA



EPA In-Use Surveillance Test Program

(Engine Family 8ADXV03.1374)

Topics

1. IUVP – Test Results (Engine Family 8ADXV03.1374)
2. EPA In-Use Surveillance Test Class Description
3. EPA Test Results / VWGoA Test Results
 - 1st Vehicle (VIN.....215)
 - 2nd Vehicle (VIN.....351)
 - 3rd Vehicle (VIN.....944)
 - 4th Vehicle (VIN.....654)
 - 5th Vehicle (VIN.....607)
4. Testing Summary
5. Conclusion
6. Proposal – Next Steps

1. IUVP-Test Results

Engine Family 8ADXV03.1374

- 2 Vehicles tested / reported in earlier IUVP program (see first two lines)
- MY 2008 low mileage

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
10300	AUDI / A6	2008	Ex. 6	IUVP	2009-06-LM	0.0702	0.9189	0.006	21.41	93.6%	27.0%	12.0%
22000	AUDI / A6	2008	Ex. 6	IUVP	2009-06-LM	0.0634	0.4494	0.0256	23.94	54.5%	13.2%	51.2%

2. In-Use Surveillance Test Class Description (Engine Family 8ADXV03.1374)

- Program began February 2010
- Engine Family: 8ADXV03.1374
- Models: AUDI A4 and AUDI A6
- US Population: 17,017
- EPA has tested 5 vehicles
 - one car passed

3. EPA Test Results / VWGoA Test Results

1st vehicle (VIN.....215)

EPA test center Ann Arbor

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
32808	AUDI A6	2008	Ex. 6	EPA	FTP #1	0.0543	0.28789	0.06979	22.93	72.4%	8.5%	139.6%

- car failed test at EPA
- contacted customer - shipped car to VWGoA test laboratory

Volkswagen test center Westlake

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
34292	AUDI A6	2008	Ex. 6	VW	FTP #1 VW Lab	0.0758	0.3128	0.0276	23.74	101.1%	9.2%	55.2%
34311	AUDI A6	2008		VW	FTP #2 VW Lab	0.0511	0.2654	0.0233	23.39	68.1%	7.8%	46.6%
34329	AUDI A6	2008		VW	FTP #3 VW Lab	0.0552	0.255	0.026	23.89	73.6%	7.5%	52.0%

- first test in VW laboratory marginally failed
- second test in VW laboratory passed
- third test in VW laboratory passed too

3. EPA Test Results / VWGoA Test Results

2nd vehicle (VIN.....351)

EPA test center Ann Arbor

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
26602	AUDI A6	2008	Ex. 6	EPA	FTP #2	0.0721	0.66211	0.01228	22.15	96.1%	19.5%	24.6%

- car passed test at EPA

3. EPA Test Results / VWGoA Test Results

3rd vehicle (VIN.....944)

EPA test center Ann Arbor

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
13402	AUDI A6	2008	Ex. 6	VW	FTP #1 VW Lab	0.0843	0.78665	0.01491	21.08	112.4%	23.1%	29.8%

- car failed test at EPA
- contacted customer - shipped car to VWGoA test laboratory

Volkswagen test center Westlake

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
13798	AUDI A6	2008	Ex. 6	VW	FTP #1 VW Lab	0.1114	1.0946	0.0023	19.99	148.5%	32.2%	4.6%
13816	AUDI A6	2008		VW	FTP #2 VW Lab	0.0982	0.8886	0.0019	21.22	130.9%	26.1%	3.8%
13850	AUDI A6	2008		VW	FTP #3 VW Lab	0.0622	0.7552	0.0023	21.37	82.9%	22.2%	4.6%

- first test in VW laboratory failed as received
- second test in VW laboratory failed
- third test passed (with US06 pre-conditioning)

3. EPA Test Results / VWGoA Test Results

4th vehicle (VIN.....654)

EPA test center Ann Arbor

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	PM 0.01 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]	PM [g/mi]
27415	AUDI A6	2008	Ex. 6	EPA	FTP #4	0.12319	0.94658	0.01485	0.01051	21.51	170.8%	27.8%	29.7%	105.1%

- car failed test at EPA
- contacted customer - shipped car to VWGoA test laboratory

Volkswagen test center Westlake

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	PM 0.01 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]	PM [%g/mi]
28573	AUDI A6	2008	Ex. 6	VW	FTP #1 VW Lab	0.0703	0.6126	0.0132	0.0056	21.92	93.7%	18.0%	26.4%	56.0%

- first test in VW laboratory passed

3. EPA – Test Results / VWGoA Test Results

5th vehicle (VIN.....607)

EPA test center Ann Arbor

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	PM 0.01 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]	PM [%g/mi]
18914	AUDI A4	2008	Ex. 6	EPA	FTP #5	0.11077	1.99387	0.02676	0.02185	17.26	163.6%	58.6%	53.6%	218.5%

- car failed test at EPA
- contacted customer - shipped car to VWGoA test laboratory

Volkswagen test center Westlake

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	PM 0.01 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]	PM [%g/mi]
20920	AUDI A4	2008	Ex. 6	VW	FTP #1 VW Lab	0.0498	0.5918	0.005	0.006	21.90	66.4%	17.4%	10.0%	70.0%

- first test in VW laboratory passed
 - VW noticed a questionable variance in EPA test results for this vehicle
 - fuel economy and emission data not consistent with other vehicles tested
 - fuel economy numbers lower and PM much higher than re-test at VW laboratory

4. Testing Summary

VW re-tested 4 cars at VW Westlake lab that failed EPA Surveillance program

- 3 passed as received at VW lab
 - 1 vehicle that passed at VW lab showed inconsistent data at EPA
 - Low fuel economy / excessive PM
- 1 required additional US06 preconditioning to pass at VW lab
- 1 vehicle passed at EPA— No re-test at VW

5. Conclusion

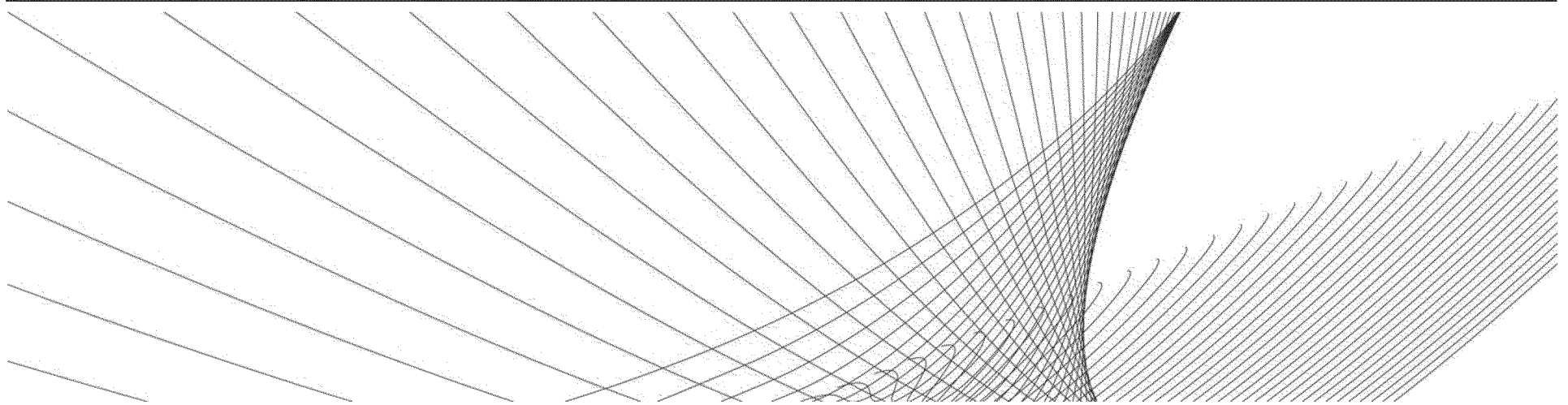
- It is VWGoA opinion that this concept is acceptable (4 of 5 vehicles passed) and no additional testing is needed within EPA's surveillance program.
- In extreme cases additional US06 pre conditioning may improve test results for the following reasons:
 - Variances of customer fuel versus test fuel
(requires longer fuel adaptation)
 - Possible poor quality (as received) fuel
(requires longer fuel adaptation)
 - Possible catalyst poisoning

6. Possible Next Steps

1. Volkswagen offers to perform additional testing of customer cars
2. Volkswagen offers to analyze current fuel samples from customer cars
3. VW will provide additional test data to EPA when available

VOLKSWAGEN

GROUP OF AMERICA



EPA In-Use Surveillance Test Program

(Engine Family 7ADXT04.2358)

Topics

1. IUVP – Test Results (Engine Family 7ADXT04.2358)
2. EPA In-Use Surveillance Test Class Description
3. EPA - Testing
 - 1st Vehicle
 - 2nd Vehicle
 - 3rd Vehicle
4. Conclusion

IUVP-Testing/Reporting (Engine Family 7ADXT04.2358)

- 2 Vehicles have been tested/reported in IUVP – (see first two lines)
- In agreement with EPA and ARB, 3 additional vehicles tested/reported– IUCP (see last three lines)

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
11,230	AUDI / SUQ / Q7	2007	Ex. 6	IUVP	2007-01-LM	0.0311	0.5480	0.0299	15.4551	41.4%	16.1%	59.9%
22,966	AUDI / SUQ / Q7	2007		IUVP	2007-02-LM	0.1653	0.4207	0.0225	15.9554	220.5%	12.4%	45.0%
19,562	AUDI / SUQ / Q7	2007		IUVP	2007-01-LM	0.0445	0.6816	0.0151	16.5053	59.3%	20.0%	30.1%
34,695	AUDI / SUQ / Q7	2007		IUVP	2007-02-LM	0.0560	0.6635	0.0209	16.0402	74.7%	19.5%	41.9%
25,398	AUDI / SUQ / Q7	2007		IUVP	2007-03-LM	0.0645	0.8204	0.0218	16.4598	86.0%	24.1%	43.6%

In-Use Surveillance Test Class (Engine Family 7ADXT04.2358)

- Program began June 2009
- Engine Family: 7ADXT04.2358
- Models: AUDI Q7 and VW-Touareg
- US Population: 9,727
- EPA tested 3 vehicles in this Program

1st Vehicle - Results

(Engine Family 7ADXT04.2358)

- Results for 1st Vehicle procured and tested by EPA

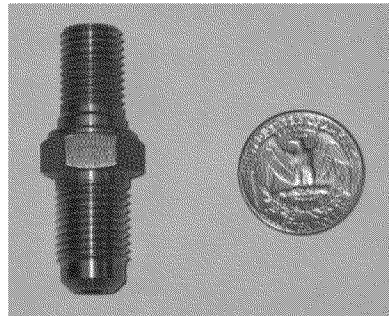
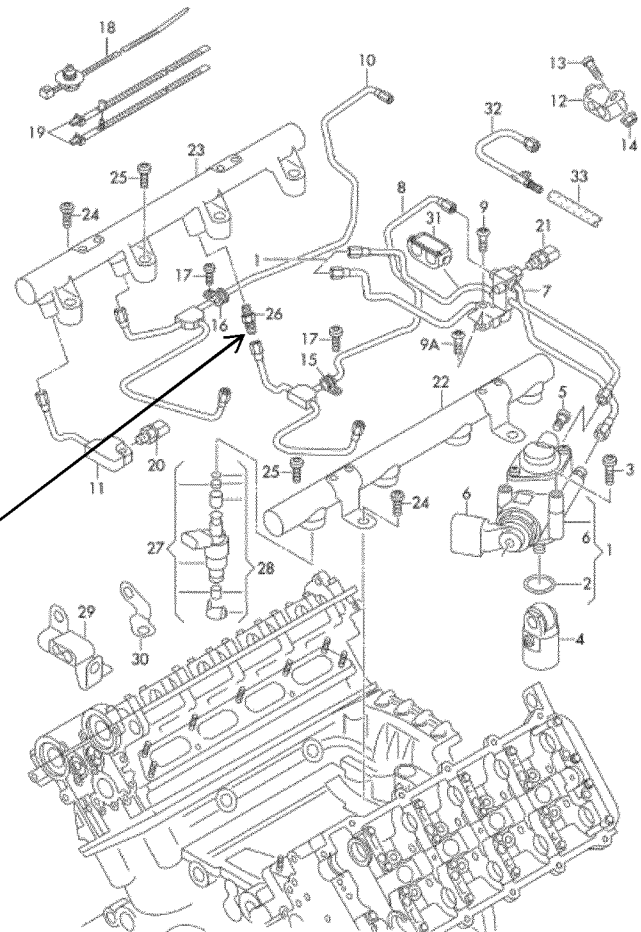
Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
43,328	AUDI / SUQ / Q7	2007	Ex. 6	EPA	FTP-#1	0.3082	2.1007	0.0255	14.3500	410.9%	61.8%	51.1%
43,402	AUDI / SUQ / Q7	2007		EPA	FTP-#2	0.1109	0.6380	0.0193	13.4000	147.9%	18.8%	38.6%

- 1st Vehicle procured and tested by EPA was also IUVP vehicle that failed

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
11,230	AUDI / SUQ / Q7	2007	Ex. 6	IUVP	2007-01-LM	0.0311	0.5480	0.0299	15.4551	41.4%	16.1%	59.9%
22,966	AUDI / SUQ / Q7	2007		IUVP	2007-02-LM	0.1653	0.4207	0.0225	15.9554	220.5%	12.4%	45.0%
19,562	AUDI / SUQ / Q7	2007		IUVP	2007-01-LM	0.0445	0.6816	0.0151	16.5053	59.3%	20.0%	30.1%
34,695	AUDI / SUQ / Q7	2007		IUVP	2007-02-LM	0.0560	0.6635	0.0209	16.0402	74.7%	19.5%	41.9%
25,398	AUDI / SUQ / Q7	2007		IUVP	2007-03-LM	0.0645	0.8204	0.0218	16.4598	86.0%	24.1%	43.6%

1st Vehicle – Analysis in Westlake, CA (Engine Family 7ADXT04.2358)

- Vehicle tested and analyzed in Westlake
- ➔ Emission results above NMOG-Standard
- Analysis show:
 - catalyst works within specs
 - rapid pressure loss in fuel rail
- ➔ Fuel pressure limiters have been changed
- Vehicle tested with new fuel pressure limiters
- ➔ Emission results below standards



Fuel Pressure Limiter

1st Vehicle - Results

(Engine Family 7ADXT04.2358)

- 1st Vehicle procured and tested by EPA
(first two lines show EPA Results)
- Analyzed and tested in Westlake, CA
(last two lines show Results in Westlake)

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
43,328	AUDI / SUQ / Q7	2007	Ex. 6	EPA	FTP #1	0.3082	2.1007	0.0255	14.3500	410.9%	61.8%	51.1%
43,402	AUDI / SUQ / Q7	2007		EPA	FTP #2	0.1109	0.6380	0.0193	13.4000	147.9%	18.8%	38.6%
44,051	AUDI / SUQ / Q7	2007		WL,CA	FTP #1-WL	0.1231	0.4497	0.0226	14.6768	164.2%	13.2%	45.2%
44,071	AUDI / SUQ / Q7	2007		WL,CA	FTP #2-WL	0.0381	0.3201	0.0258	14.7524	50.8%	9.4%	51.7%

2nd and 3rd Vehicle - Results (Engine Family 7ADXT04.2358)

- Results for 2nd Vehicle procured and tested by EPA

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
26,354	AUDI / SUQ / Q7	2007	Ex. 6	EPA	FTP-#1	0.0882	0.5607	0.0282	14.3100	117.6%	16.5%	56.4%
26,447	AUDI / SUQ / Q7	2007		EPA	FTP-#2	0.0749	0.5230	0.0292	14.1900	99.9%	15.4%	58.4%

- Results for 3rd Vehicle procured and tested by EPA

Mileage	Model	Mod Year	VIN	Test	Test Type	NMOG 0.075 [gram / mi]	CO 3.4 [gram / mi]	NOx 0.05 [gram / mi]	FE [mi / gal]	NMOG [% Std.]	CO [% Std.]	NOx [% Std.]
22,810	AUDI / SUQ / Q7	2007	Ex. 6	EPA	FTP-#1	0.0487	2.0133	0.0176	14.2800	65.0%	59.2%	35.2%

Conclusion (Engine Family 7ADXT04.2358)

- In-Use Testing:
 - 4 out of 5 vehicle passed the emission test – No additional testing needed
- EPA In-Use Surveillance Test Class:
 - 3 vehicles have been tested
 - 1st vehicle failed – same vehicle failed in IUVP as well
 - 1st vehicle passed after repair
 - 2nd vehicle passed
 - 3rd vehicle passed
 - ➔ 1 defect vehicle failed (only 27 warranty claims – limiter valve)
2 vehicles passed

To: "Hennard, Mike" [mike.hennard@vw.com]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 8/5/2010 1:58:39 PM
Subject: Re: VW Presentations - July 29
[N116.xls](#)
mike.hennard@vw.com

Thanks, Mike.

Here is the summary sheet for the 3.1L vehicles. I corrected the odometer reading for N116-0051.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Hennard, Mike" <mike.hennard@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/05/2010 09:33 AM
Subject: VW Presentations - July 29

Lynn:

As you requested, here are PDF format copies of presentation we gave in July 29th meeting at your office.

One additional question, can you supply EPA data sheet for 3.1L vehicles (similar to data sent for 4.2L vehicles).

Michael Hennard
Manager - Emissions Compliance EEO

Volkswagen Group of America
3800 Hamlin Road
Auburn Hills, MI 48326

Telephone Number: 248 754 4202

Fax: 248 754 4207

mike.hennard@vw.com

[attachment "Meeting_EPA_Surveillance_8ADXV03 1374 work to EPA.pdf" deleted by Lynn Sohacki/AA/USEPA/US] [attachment "Surveillance_7ADXT04.2358 epa.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

Class Summary: Class N116															8/2/2010
Engine Family:	8ADXV03.1374														
Model year:	2008														
Make:	Audi														
Model:	A6														
Production:															
Vehicle	Odo.	FTP Test Date	Change	Test CO	CO Std	Test NOx	NOx Std	Test NMOG	NMOG Std	Evap Test Date	Test Evap	Evap Std	PM	PM Std.	US06 Test Date
N116-0051	13365	3/10/2010		0.787	3.4	0.015	0.05	0.084	0.075	3/11/2010	1.129	0.65		10	no US06
no mil															
N116-0054	27378	6/3/2010		0.95		0.015		0.1281					10.513*		
no mil															
N116-0088	32768	2/23/2010		0.288		0.069		0.0542							
no mil															
N116-0106	18873	6/4/2010		1.99		0.027		0.1132					21.88		
no mil															
N116-0174	26564	2/23/2010		0.662		0.0123		0.0721							
no mil															
VW IUVP Tests															
WAU AH74F88N058342	23082							0.0634							
WAU DH74F18N171773	10983							0.0702							
													* passes with ASTM rounding		

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; N=Ben Haynes/OU=AA/O=USEPA/C=US@EPA[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 8/5/2010 3:30:46 PM
Subject: RE: VW Group: Bentley Procedure Request for Refueling Flex-Fuel Test Vehicle

Ben, Bentley's refueling procedure is below.

Bob, we would like to test with E00 first so please have the vehicle setup for gasoline when its delivered.

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 07/28/2010 03:04 PM
Subject: RE: VW Group: Bentley Procedure Request for Refueling Flex-Fuel Test Vehicle

That is an LA4.
The Bentley guys sometimes use some very old terminology.
If I had thought about it, I would have changed it.
I don't know how long you've been around, but that comes from way back in the days of two bag FTP tests.

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Wednesday, July 28, 2010 2:43 PM
To: Hart, Robert (VWoA)
Subject: Re: VW Group: Bentley Procedure Request for Refueling Flex-Fuel Test Vehicle

Don't recall ever hearing of a FTP72. Is that like a H-74 or LA4?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 07/28/2010 11:08 AM
Subject: VW Group: Bentley Procedure Request for Refueling Flex-Fuel Test Vehicle

Hello Jim,

Since the Bentley Continental flex-fuel vehicle will be tested with both Tier 2 Cert and E85 fuels, to ensure a complete flush of the fuel system between tests, Bentley requests that the EPA use the sequence below when switching fuel types for confirmatory testing.

Fuel drain
Fill with 40% fuel
FTP72
Fuel drain
Fill with 40% fuel
FTP72

Please let me know if this is acceptable.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Mike Haley/OU=DC/O=USEPA/C=US@EPA[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 8/5/2010 8:16:08 PM
Subject: Notification of a new in-use confirmatory test class
[NOTIF-N-001c-Audi.doc.pdf](#)

Hi.

Attached is a letter that was sent to your company announcing the selection of an EPA in-use confirmatory class. Please let me know if you have any questions.

Thanks,

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

August 5, 2010

OFFICE OF
AIR AND RADIATION

Mr. Dennis Reineke
Volkswagen of America
3800 Hamlin Road
Auburn Hills, Michigan 48326

Dear Mr. Reineke:

The Environmental Protection Agency will test a 2008 model-year Audi test-group in our confirmatory test-program. The group shown in Enclosure 1 will be tested at the National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan.

After sample vehicles have been identified and approximately a week before they will be brought in for maintenance, I will notify you via e-mail of the vehicle identification number. Please complete and return the parameters form that will be attached to the e-mail.

Maintenance will consist of an under-hood inspection and review of on-board computer codes. The federal test procedure and highway cycle will follow a single LA-4 preconditioning cycle. We will measure the particulate level of each vehicle. If this test-group contains models which are equipped with 4WD or AWD, the vehicles may be tested in either of these modes.

We invite your representatives to be present as observers during the test program. If you have any questions concerning this investigation please contact me.

Sincerely,

A handwritten signature in cursive script, reading "Lynn Sohacki".

Lynn Sohacki
Compliance and Innovative Strategies Division

Enclosure

ENCLOSURE 1

<u>Lab</u>	NVFEL Ann Arbor, Michigan
<u>Test Group</u>	8ADXV03.1374
<u>Estimated Start Date</u>	Week-ending October 8, 2010
<u>Recall/Testing Representative</u>	Lynn Sohacki
<u>Telephone Number</u>	(734) 214- 4851
<u>E-mail address</u>	Sohacki.lynn@epa.gov
<u>Class Numbers</u>	N001c/N002c (low-mileage / high-mileage)

To: mike.hennard@VW.com[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 8/6/2010 1:11:56 PM
Subject: Fw: Notification of a new in-use confirmatory test class
[NOTIF-N-001c-Audi.doc.pdf](#)

Hi, Mike.

I intended to send this to you as well as Sebastian.

Regards,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/06/2010 09:11 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>, Mike Haley/DC/USEPA/US@EPA
Date: 08/05/2010 04:16 PM
Subject: Notification of a new in-use confirmatory test class

Hi.

Attached is a letter that was sent to your company announcing the selection of an EPA in-use confirmatory class. Please let me know if you have any questions.

Thanks,

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

August 5, 2010

OFFICE OF
AIR AND RADIATION

Mr. Dennis Reineke
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3800 Hamlin Road
Auburn Hills, Michigan 48326

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After sample vehicles have been identified and approximately a week before they will be brought in for maintenance, I will notify you via e-mail of the vehicle identification number. Please complete and return the parameters form that will be attached to the e-mail.

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We invite your representatives to be present as observers during the test program. If you have any questions concerning this investigation please contact me.

Sincerely,

A handwritten signature in cursive script, reading "Lynn Sohacki".

Lynn Sohacki
Compliance and Innovative Strategies Division

Enclosure

ENCLOSURE 1

Lab

NVFEL
Ann Arbor, Michigan

Test Group

8ADXV03.1374

Estimated Start Date

Week-ending October 8, 2010

Recall/Testing Representative

Lynn Sohacki

Telephone Number

(734) 214- 4851

E-mail address

Sohacki.lynn@epa.gov

Class Numbers

N001c/N002c (low-mileage / high-mileage)

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Mon 8/9/2010 5:17:08 PM
Subject: VW/Audi Meeting with EPA

Hello Jim:

Per our telephone conversation, I am sending a request for a meeting with EPA staff on Thursday afternoon, August 19, 2010.

Preliminary discussion topics would be:

- Worst case emission and emission impact for OBD monitor
- HEV application for certification (example, open points)
- Worst case determination for FE (GHG) and emissions e.g. Start/Stop Switch
- Emission warranty part list for HEV parts and A/C system (GHG)
- Determination of OBD relevance
- Specific Hybrid test issues

I believe that we would need about 2 hours. I will try to refine the list of topics and provide better explanation.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 8/9/2010 8:13:41 PM
Subject: VW/Audi Meeting with EPA: Misc issues

Hello Jim:

Per our telephone conversation, I am sending a request for a meeting with EPA staff on Thursday afternoon, August 19, 2010.

Preliminary discussion topics would be:

- Worst case emission and emission impact for OBD monitor
- HEV application for certification (example, open points)
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Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 8/9/2010 8:13:41 PM
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- Emission warranty part list for HEV parts and A/C system (GHG)
- Determination of OBD relevance
- Specific Hybrid test issues

I believe that we would need about 2 hours. I will try to refine the list of topics and provide better explanation.

Best regards,
Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 8/10/2010 12:49:33 PM
Subject: Tentative: VW/Audi Meeting with EPA: Misc issues

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 8/10/2010 1:48:59 PM
Subject: Rescheduled: VW/Audi Meeting with EPA: Misc issues (Aug 19 01:00 PM EDT in AA-601C/AA-OTAQ-LAB@EPA)

Hello Jim:

Per our telephone conversation, I am sending a request for a meeting with EPA staff on Thursday afternoon, August 19, 2010.

Preliminary discussion topics would be:

- Worst case emission and emission impact for OBD monitor
- HEV application for certification (example, open points)
- Worst case determination for FE (GHG) and emissions e.g. Start/Stop Switch
- Emission warranty part list for HEV parts and A/C system (GHG)
- Determination of OBD relevance
- Specific Hybrid test issues

I believe that we would need about 2 hours. I will try to refine the list of topics and provide better explanation.

Best regards,
Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: [Ex. 7]@vw.com]
Cc: [redacted]
Bcc: [redacted]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 8/10/2010 6:14:05 PM
Subject: Re: VW/Audi Meeting with EPA

Sorry, I missed the date in your note. You should have received a re-schedule meeting notice.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: [Ex. 7]@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/09/2010 01:17 PM
Subject: VW/Audi Meeting with EPA

Hello Jim:

Per our telephone conversation, I am sending a request for a meeting with EPA staff on Thursday afternoon, August 19, 2010.

Preliminary discussion topics would be:

- Worst case emission and emission impact for OBD monitor
- HEV application for certification (example, open points)
- Worst case determination for FE (GHG) and emissions e.g. Start/Stop Switch
- Emission warranty part list for HEV parts and A/C system (GHG)
- Determination of OBD relevance
- Specific Hybrid test issues

I believe that we would need about 2 hours. I will try to refine the list of topics and provide better explanation.

Best regards,

[Ex. 7]

[Ex. 7]
Engineering and Environmental Office
Volkswagen Group of America, Inc.

[Ex. 7]

E-Mail: **Ex. 7** @vw.com

To: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 8/11/2010 1:17:27 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) - Ex. 6 0900 vehicle pick up on 8/17/10
(Tuesday)

N148RXX-0184 (2008 VW/Passat) - Ex. 6 0900 vehicle pick up on 8/19/10
(Thursday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Rodgers, William" [William.Rodgers@vw.com]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/11/2010 5:27:52 PM
Subject: Confirmatory Test Results

Hello Jim,

Axel Reisner told me that you will send the test results via e-mail. I assume that he is talking about scanned copies of the QC'd lab reports for the tests.

Please include both Bill Rodgers (William.Rodgers@vw.com) and me as recipients of the e-mail so we have them if one of us is not here.

Thanks,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/11/2010 8:00:21 PM
Subject: Diesel Shift Tables

Hello Jim,

I will contact Germany for to see if any of the shift tables currently in the system will work for the M6 diesel.

I should have an answer for you by the end of the week.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224


Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Rodgers, William"
[William.Rodgers@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/11/2010 8:26:19 PM
Subject: Confirmatory cert test data on the 2011 Jetta
2011 VW Jetta 1st tests.pdf

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

CER

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data							
Test Information			Test Date: 8/11/2010				
Test Number: 2010-0231-004			Vehicle ID: VW36100220				
	Key Start / Hot Soak: 08:56:49 / 09:32		MFR Name: VOLKSWAGEN		MFR Codes: 590 VWX		
	Fuel Container ID: F00023		Config #: 00				
	Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: AUTO				
	Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa		Shift Schedule: A09980005				
	Calculation Method: Gasoline		Beginning Odometer: 003969.0 MI				
	Pretest Remarks:		Drive Schedule: ftp3bag		Soak Period: 22.8 hours		
<hr/>							
Bag Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	8.301	48.886	0.228	1.206	2.878		
Ambient	3.212	0.157	0.014	0.049	2.239		
Net Concentration	5.379	48.743	0.216	1.161	0.841	4.478	
Remarks:							
Phase 2							
Sample	3.118	2.238	0.007	0.761	2.111		
Ambient	3.276	0.259	0.012	0.047	2.218		
Net Concentration	0.028	1.993	-0.005	0.716	0.019	0.008	
Remarks:							
Phase 3							
Sample	3.836	5.227	0.035	1.061	2.223		
Ambient	3.904	0.585	0.000	0.048	2.227		
Net Concentration	0.242	4.689	0.035	1.016	0.173	0.056	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks:							
<hr/>							
Results							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC / NMOG</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.051	0.927	0.006	347.2	0.009	0.042 / 0.044	25.487
Phase 2	0.000	0.060	0.000	340.0	0.000	0.000 / 0.000	26.140
Phase 3	0.002	0.089	0.001	302.5	0.002	0.001 / 0.001	29.375
Weighted	0.01133	0.24752	0.00153	331.209	0.00258	(NMOG=1.04xNMHC) 0.0089 / 0.0093	
<hr/>							
Fuel Economy							
	<u>Gasoline MPG</u>			<u>Dyno Settings</u>	<u>Dyno #:</u> D002		
Phase 1	25.46				Inertia: 3625		
Phase 2	26.11				EPA Set Co A: 6.21		
Phase 3	29.35				EPA Set Co B: 0.1834		
					EPA Set Co C: 0.01828		
Weighted	26.80				Emissions Bench: D002		

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0231-004

Vehicle ID: VW36100220

Results	HC-FID	CO	NOx	CO2	CH4	NMHC	Meth Response
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.181	3.315	0.022	1241.0	0.033	0.151	1.071
Phase 2	0.002	0.232	0.000	1310.2	0.001	0.000	
Phase 3	0.008	0.319	0.004	1086.7	0.007	0.002	



Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.02	29.02	29.02	
Avg Cell Temp (degF)	75.05	75.08	75.20	
Dew Point (degF)	48.86	48.71	48.58	
Specific Humidity (grains/lbm)	52.91	52.62	52.34	
NOx Corr Factor	0.9059	0.9048	0.9037	
CO2 Dilution Factor	11.063	17.605	12.620	
CFV Vmix (scf @68F)	2062.51	3531.37	2063.56	
CVS Flow Rate Avg (scfm)	244.13	243.54	243.44	
Fan Placement:	One Fan - Down - Front			
Phase Time (secs)	506.90	870.00	508.59	
Distance (miles)	3.574	3.853	3.592	
Bag Analysis Time (secs)	76.9	73.0	73.0	

MFR Test Results

for Procedure 21 Federal fuel 2-day exhaust (w/can load)

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0072	0.191	0.0029	327	0	0.0058

Odometer
3780 M

MPG
27.1

MPG is 1.12 % higher than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By:

[Signature]

Date:

8-11-10

Paired Data Offset of ≥3% Report

MFR		Num	Load					
VW		590	MPH	EPA Lbs	Mfr. Lbs.	Delta %	target	veh EPA veh Mfr
VID:	VW35100220		10	9.872	1.79	-81.87%	37.64	27.768 35.85
Config 0			20	17.19	9.1	-47.06%	45.7	28.51 36.6
			30	28.164	19.93	-29.24%	57.18	29.016 37.25
			40	42.794	34.28	-19.90%	72.08	29.286 37.8
			50	61.08	52.15	-14.62%	90.4	29.32 38.25
			60	83.022	73.54	-11.42%	112.14	29.118 38.6

Test Numbers	Date	Dyno
231004 FTP	8/11/10	D002
231005 HFET	8/11/10	D002
231006 US06	8/11/10	D002

Vehicle+Set= Target

Offset Summary

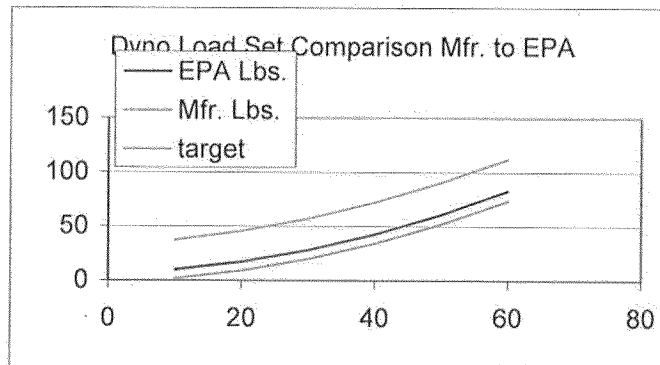
Quickcheck CD % Diff #DIV/0!

		EPA	MFG	Mfg Diff%			EPA	MFG	Mfg Diff%
FTP	FE	26.8	27.1	1.12%	US06	FE (Bag2)	30.38	33.9	11.59%
	THC	0.01133	0.0072	-36.45%		FE (Total)	25.84	25.7	-0.54%
	CO	0.24752	0.191	-22.83%		THC	0.00735	0.0271	268.71%
	NOx	0.00153	0.0029	89.54%		CO	0.41884	0.557	32.99%
	CO2	331.209	327.000	-1.27%		NOx	0.00967	0.0197	103.72%
	CH4			#DIV/0!		CO2	343.131	344	0.25%
	NMHC	0.0089	0.0058	-34.83%		CH4			#DIV/0!
					NMHC				
					0.0053 0.0254 379.25%				
HFET	FE	39.67	42.3	6.63%	Dyno Set				
	THC	0.001	0.0074	640.00%		Coeffs.	EPA	MFG	Target
	CO	0.114	0.286	150.88%		A	6.21	-2	33
	NOx	0.002	0.0066	230.00%		B	0.1834	0.203	0.293
	CO2	223.7	209	-6.57%		C	0.01828	0.0176	0.0171
	CH4			#DIV/0!					
	NMHC	0	0.0072	#DIV/0!					

Finding: FTP Test results and related information indicate results are valid
 HFET Test results and related information indicate results are valid
 US06 Test results and related information indicate results are valid

Observations on finding:

- 1 EPA RLD values 9 lb higher than MFR.
- 2 CO2 values support FE offsets
- 3 There were no errors with these test to account for the FE bias



Results reviewed by

De 7 Bm
Signature

8/11/10
Date

CERT

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0231-005

Vehicle ID: VW36100220

Test Information



Test Date: 8/11/2010

Key Start: 10:13:11

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 3

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: VOLKSWAGEN

MFR Codes: 590 VWX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 003980.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

	HC-FID	CO	NOx	CO2	CH4	NonMeth HC
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	3.417	11.864	0.177	1.491	2.141	
Ambient	3.715	0.329	0.031	0.047	2.340	
Net Concentration	0.116	11.572	0.149	1.449	0.061	0.051

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID	CO	NOx	CO2	CH4	NMHC / NMOG	Vol MPG
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.001	0.114	0.002	223.7	0.000	0.000 / 0.000	39.711

(NMOG=1.04xNMHC)

Fuel Economy

Gasoline MPG
Phase 1 39.67

Dyno Settings

Dyno #: D002
Inertia: 3625
EPA Set Co A: 6.21
EPA Set Co B: 0.1834
EPA Set Co C: 0.01828

Emissions Bench: D002

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0231-005

Vehicle ID: VW36100220

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.006	1.165	0.023	2292.7	0.004	0.003	1.071

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (InHg)	29.01			
Avg Cell Temp (degF)	75.05			
Dew Point (degF)	49.78			
Specific Humidity (grains/lbm)	54.78			
NOx Corr Factor	0.9132			
CO2 Dilution Factor	8.981			
CFV Vmix (scf @68F)	3054.14			

CVS Flow Rate Avg (scfm) 239.54

Fan Placement: One Fan - Down - Front

Phase Time (secs)	765.01
Distance (miles)	10.248
Bag Analysis Time (secs)	74.5

MFR Test Results

for Procedure 3 HWFE

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0074	0.286	0.0066	209	0	0.0072

Odometer
3666 M

MPG
42.3

MFR Lab: Volkswagen AG, Dept EASZ/1

MPG is 6.62 % higher than EPA MPG

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730


Validated By:

[Signature]

Date:

8-11-10

CERT

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data							
Test Information		Test Number: 2010-0231-006			Vehicle ID: VW36100220		
	Test Date: 8/11/2010		MFR Name: VOLKSWAGEN				
	Key Start: 11:00:21		MFR Codes: 590 VWX				
	Fuel Container ID: F00023		Config #: 00				
	Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: AUTO				
	Test Procedure: 89 US06		Shift Schedule: A09980041				
	Calculation Method: Gasoline		Beginning Odometer: 004001.0 MI				
Pretest Remarks:		Drive Schedule: us06warmup_2bagus06					
Bag Data							
		HC-FID	CO	NOx	CO2	CH4	NonMeth HC
		(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Phase 1							
Sample		3.957	32.050	0.488	0.872	2.355	
Ambient		3.224	0.252	0.013	0.045	2.237	
Net Concentration		0.944	31.815	0.476	0.830	0.264	0.661
Remarks:							
Phase 2							
Sample		3.451	10.361	0.181	1.114	2.160	
Ambient		3.241	0.253	0.018	0.045	2.233	
Net Concentration		0.480	10.130	0.165	1.072	0.112	0.359
Remarks:							
Phase 3							
Sample							
Ambient							
Net Concentration							
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks:							
Results							
		HC-FID	CO	NOx	CO2	CH4	NMHC / NMOG
		(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
Phase 1		0.019	1.275	0.029	523.0	0.006	0.013 / 0.014
Phase 2		0.004	0.176	0.004	292.0	0.001	0.003 / 0.003
Composite		0.00735	0.41884	0.00967	343.131	0.00221	0.0053 / 0.0055
		(NMOG=1.04xNMHC)					
Fuel Economy		Gasoline MPG		Dyno Settings			
Phase 1		16.92		Dyno #: D002			
Phase 2		30.38		Inertia: 3625			
				EPA Set Co A: 6.21			
				EPA Set Co B: 0.1834			
				EPA Set Co C: 0.01828			
Composite		25.84		Emissions Bench: D002			

FE diff 73%
 Road load ABC, zero span 1's, tail pipe BP OK
 8-11-10

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0231-006

Vehicle ID: VW36100220

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.033	2.255	0.051	924.8	0.011	0.023	1.071
Phase 2	0.026	1.093	0.027	1818.4	0.007	0.019	

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.01	29.01		
Avg Cell Temp (degF)	75.09	75.22		
Dew Point (degF)	49.40	49.66		
Specific Humidity (grains/lbm)	54.01	54.55		
NOx Corr Factor	0.9102	0.9123		
CO2 Dilution Factor	15.304	12.019		
CFV Vmix (scf @68F)	2149.94	3273.54		

CVS Flow Rate Avg (scfm) 541.55 538.12

Fan Placement: US06 Only - One Large Fan - Down - Front

Phase Time (secs)	130.00	365.01	108.20
Distance (miles)	1.768	6.226	
Bag Analysis Time (secs)	82.1	266.9	

MFR Test Results

for Procedure 90 US06

<u>MFR Number</u>	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>NMOG</u>	<u>NonMeth HC</u>
1E+07	0.0271	0.557	0.0197	344	0	0.0254

Odometer
3687 M

MPG
25.7

MPG is -0.56 % lower than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By:

David VanAntwerp

Date:

8-11-10

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/11/2010 8:34:08 PM
Subject: Re: Diesel Shift Tables

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/11/2010 04:00 PM
Subject: Diesel Shift Tables

Hello Jim,

I will contact Germany for to see if any of the shift tables currently in the system will work for the M6 diesel.

I should have an answer for you by the end of the week.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Rodgers, William"
Sent: Thur 8/12/2010 12:35:31 PM
Subject: RE: Confirmatory cert test data on the 2011 Jetta
william.rodgers@vw.com

Jim,

Thanks for the Jetta test results, we are evaluating it. Please send the Tiquan data to me when it becomes available because Bob Hart is out of the office today.

Just FYI, The Bentley is in route to Ann Arbor. Axel Reisner will be present when it arrives.

Bill Rodgers

Engineering and Environmental Office

VOLKSWAGEN Group of America, Inc.
Rochester Hills, MI

United States

(248) 754-4219

(248) 754-4207

william.rodgers@vw.com

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From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Wednesday, August 11, 2010 4:26 PM
To: Hart, Robert (VWoA); Rodgers, William
Subject: Confirmatory cert test data on the 2011 Jetta

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: richard.thomas@vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 8/12/2010 12:35:45 PM
Subject: Fw: Confirmatory cert test data on the 2011 Jetta

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov
----- Forwarded by Jim Snyder/AA/USEPA/US on 08/12/2010 08:35 AM -----

From: Jim Snyder/AA/USEPA/US
To: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>, "Rodgers, William" <William.Rodgers@vw.com>
Date: 08/11/2010 04:26 PM
Subject: Confirmatory cert test data on the 2011 Jetta

[attachment "2011 VW Jetta 1st tests.pdf" deleted by Jim Snyder/AA/USEPA/US]

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Rodgers, William" [William.Rodgers@vw.com]; Hart, Robert (VWoA)" [Robert.Hart@vw.com]; ichard.thomas@vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 8/12/2010 7:06:29 PM
Subject: RE: Confirmatory cert test data on the 2011 Tiquan
2011 VW Tiquan 1st US06.pdf

The FTP city and Highway are longer due to PM analysis. Should have friday.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

CERT
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-006

Vehicle ID: VW416 80218

Test Information



Test Date: 8/11/2010
Key Start: 13:07:03
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 89 US06
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A06400020
Beginning Odometer: 004519.0 MI
Drive Schedule: us06warmup_2bagus06

Bag Data

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Phase 1						
Sample	7.211	178.654	1.297	0.843	3.130	
Ambient	4.241	1.309	0.022	0.042	2.087	
Net Concentration	3.243	177.429	1.276	0.803	1.178	1.972

Remarks:

Phase 2

Sample	5.710	74.000	0.729	1.130	2.499	
Ambient	4.255	1.244	0.026	0.042	2.089	
Net Concentration	1.816	72.862	0.705	1.091	0.588	1.182

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.066	7.335	0.081	522.0	0.028	0.040 / 0.042	16.659
Phase 2	0.016	1.315	0.020	309.5	0.006	0.011 / 0.011	28.531
Composite	0.02735	2.64948	0.03313	356.599	0.01092	(NMOG=1.04xNMHC) 0.0172 / 0.0179	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #: D329 - FWD
Phase 1	16.64		Inertia: 3875
Phase 2	28.50		EPA Set Co A: 15.56
			EPA Set Co B: -0.1295
			EPA Set Co C: 0.02613
Composite	24.59		Emissions Bench: Mexa 7200dle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-006

Vehicle ID: VW416 80218

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.118	13.029	0.144	927.1	0.050	0.072	1.079
Phase 2	0.101	8.202	0.122	1930.4	0.038	0.066	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.99	28.99		
Avg Cell Temp (degF)	74.26	74.44		
Dew Point (degF)	52.12	52.08		
Specific Humidity (grains/lbm)	59.86	59.78		
NOx Corr Factor	0.9336	0.9332		
CO2 Dilution Factor	15.559	11.776		
CFV Vmix (scf @68F)	2227.28	3414.34		

CVS Flow Rate Avg (scfm) 564.58 561.26

Fan Placement: US06 Only - One Large Fan - Down - Front

Phase Time (secs)	130.01	364.99	106.70
Distance (miles)	1.776	6.237	
Bag Analysis Time (secs)	81.8	253.4	

MFR Test Results

for Procedure 90 US06

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.024	2.92	0.069	352	0	0.0151

Odometer
4426 M

MPG
24.9

MPG is 1.27 % higher than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By: 52787 Date: 8/11/10

To: "Hennard, Mike" [mike.hennard@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 8/12/2010 8:27:01 PM
Subject: Re: VW Presentations - July 29
mike.hennard@vw.com

Hi, Mike.

We are wondering if you have answers to the other questions that we posed to VW during our meeting. Specifically, you were going to investigate whether the MIL was on or if any fault codes were set when VW recruited vehicle with VIN ending 1590 after it failed at EPA.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Hennard, Mike" <mike.hennard@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/05/2010 09:33 AM
Subject: VW Presentations - July 29

Lynn:

As you requested, here are PDF format copies of presentation we gave in July 29th meeting at your office.

One additional question, can you supply EPA data sheet for 3.1L vehicles (similar to data sent for 4.2L vehicles).

Michael Hennard
Manager - Emissions Compliance EEO

Volkswagen Group of America
3800 Hamlin Road
Auburn Hills, MI 48326

Telephone Number: 248 754 4202
Fax: 248 754 4207
mike.hennard@vw.com

[attachment "Meeting_EPA_Surveillance_8ADXV03 1374 work to EPA.pdf" deleted by Lynn Sohacki/AA/USEPA/US] [attachment "Surveillance_7ADXT04.2358 epa.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
From: "Rodgers, William"
Sent: Fri 8/13/2010 12:27:58 PM
Subject: VW36100220 Release
william.rodgers@vw.com

Hello Jim,

Can you please make arrangements to release the Jetta #VW36100220 so we can pick it up after we deliver the other Jetta (VW36100250) on Monday morning the 16th.

Thanks,

Bill Rodgers

Engineering and Environmental Office

VOLKSWAGEN Group of America, Inc.
Rochester Hills, MI

United States

(248) 754-4219

(248) 754-4207

william.rodgers@vw.com

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To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Fri 8/13/2010 12:47:29 PM
Subject: Diesel Shift Tables

Hello Jim,

According to our diesel cert engineer, shift tables 590 0035 (FTP) and 590 0036 (HFET) can be used as indicated in the MY 2009 Application Common Sections (Section 12). These shift tables should already be in the EPA Lab database. They are the standard VW gasoline engine M6 shift tables.

Here are the upshift points by speed.

UP-SHIFT

1 - 2 15 mph

2 - 3 25 mph

3 - 4 40 mph

4 - 5 47 mph

5 - 6 52 mph

Due to the gear ratios in the diesel transmission the following declutch points must be used:

DECLUTCH

6 - 0 30 mph

5 - 0 25mph

4 - 0 20mph

I am still waiting for the US06 schedule.

Best regards,

Bob Hart

From: Hart, Robert (VWoA)
Sent: Wednesday, August 11, 2010 4:00 PM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Diesel Shift Tables

Hello Jim,

I will contact Germany for to see if any of the shift tables currently in the system will work for the M6 diesel.

I should have an answer for you by the end of the week.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 8/13/2010 7:04:30 PM
Subject: Re: Diesel Shift Tables

Bob, Thanks for the help on the diesel. Hope you are feeling better today.

I talked to the lab and they said they'd release the Tiquan data today but still haven't seen them as of 1:30. I'll check one more time.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/13/2010 08:47 AM
Subject: Diesel Shift Tables

Hello Jim,

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Robert Hart

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Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Rodgers, William" [William.Rodgers@vw.com]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 8/13/2010 7:36:09 PM
Subject: Re: VW36100220 Release
william.rodgers@vw.com

I tried to sign off on it but I can't find the paperwork, I think Van Amberg has it. I'll leave a note for Vince to sign off early Monday morning but call before you come out to verify.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Rodgers, William" <William.Rodgers@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
Date: 08/13/2010 08:28 AM
Subject: VW36100220 Release

Hello Jim,
Can you please make arrangements to release the Jetta #VW36100220 so we can pick it up after we deliver the other Jetta (VW36100250) on Monday morning the 16th.

Thanks,
Bill Rodgers
Engineering and Environmental Office

VOLKSWAGEN Group of America, Inc.
Rochester Hills, MI
United States
(248) 754-4219
(248) 754-4207
william.rodgers@vw.com

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To: "Rodgers, William" [William.Rodgers@vw.com]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 8/13/2010 8:03:47 PM
Subject: Tiquan test results
2011 VW Tiquan FTP and 2nd US06 wPM.pdf

Showed up but Hwy is missing.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

CERT
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-004

Vehicle ID: VW416 80218

Test Information



Test Date: 8/11/2010

MFR Name: AUDI

Key Start / Hot Soak: 09:51:45 / 10:07

MFR Codes: 640

ADX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa

Shift Schedule: A06400035

Calculation Method: Gasoline

Beginning Odometer: 004484.0 MI

Pretest Remarks:

Drive Schedule: flp3bag

Soak Period: 19.8 hours

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	13.519	68.890	0.872	0.977	3.267	
Ambient	5.364	1.272	0.029	0.045	2.392	
Net Concentration	8.549	67.712	0.845	0.935	1.051	7.415

Remarks:

Phase 2

Sample	3.492	2.513	0.300	0.685	2.342	
Ambient	3.535	0.232	0.023	0.044	2.439	
Net Concentration	0.139	2.293	0.278	0.643	0.028	0.109

Remarks:

Phase 3

Sample	3.222	8.950	0.102	0.888	2.600	
Ambient	3.122	0.287	0.026	0.044	2.503	
Net Concentration	0.307	8.683	0.078	0.847	0.264	0.022

Remarks:

Phase 4

Sample	
Ambient	
Net Concentration	

Remarks: This test has particulate results.

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.110	1.756	0.033	381.2	0.016	0.095 / 0.099	23.132
Phase 2	0.003	0.095	0.017	418.5	0.001	0.002 / 0.002	21.237
Phase 3	0.004	0.224	0.003	342.9	0.004	0.000 / 0.000	25.904
Weighted	0.02533	0.47508	0.01677	389.924	0.00465	(NMHC=1.04xNMHC) 0.0210 / 0.0218	


Fuel Economy


	Gasoline MPG
Phase 1	23.11
Phase 2	21.22
Phase 3	25.88
Weighted	22.73

Dyno Settings

Dyno #: D329 - FWD
Inertia: 3875
EPA Set Co A: 15.56
EPA Set Co B: -0.1295
EPA Set Co C: 0.02613

Emissions Bench: Mexa 7200dle

NVFEL Laboratory Test Data							CVS	
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data								
Test Number: 2010-0242-004				Vehicle ID: VW416 80218				
	Results	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
	Phase 1	0.394	6.297	0.119	1366.8	0.056	0.342	1.079
	Phase 2	0.011	0.365	0.067	1609.7	0.003	0.009	
	Phase 3	0.014	0.806	0.011	1235.2	0.014	0.001	
Test Conditions		<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>			
Barometer (inHg)		29.00	29.00	28.99				
Avg Cell Temp (degF)		74.45	74.83	74.93				
Dew Point (degF)		50.78	51.10	50.94				
Specific Humidity (grains/lbm)		56.92	57.60	57.28				
NOx Corr Factor		0.9217	0.9244	0.9231				
CO2 Dilution Factor		13.605	19.540	15.063				
CFV Vmix (scf @68F)		2807.29	4807.71	2800.51				
Total Vmix (scf@68F)		2820.65	4830.71	2813.85				
CVS Flow Rate Avg (scfm)		332.55	331.49	331.68				
Fan Placement: One Fan - Down - Front								
Phase Time (secs)		506.50	870.20	506.60				
Distance (miles)		3.585	3.846	3.602				
Bag Analysis Time (secs)		953.6	146.8	91.7				
MFR Test Results		for Procedure 21 Federal fuel 2-day exhaust (w/can load)						
<u>MFR Number</u> 1E+07	<u>HC</u> 0.0202	<u>CO</u> 0.49	<u>NOx</u> 0.02	<u>CO2</u> 378	<u>NMOG</u> 0	<u>NonMeth HC</u> 0.015		
<u>Odometer</u> 4239 M	<u>MPG</u> 23.4				MFR Lab: Volkswagen AG, Dept EASZ/1			
MPG is 2.96 % higher than EPA MPG					Dyno: 21			
					Fuel: 61 Tier 2 Cert Gasoline			
I have validated the data in accordance with the requirements of TP 730								
Validated By: _____		62787			Date: 8/12/10			

NVFEL Laboratory Test Data							PARTICULATE	
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data								
Test Information			Test Number: 2010-0242-004			Vehicle ID: VW416 80218		
	Test Date: 8/11/2010		Key Start: 09:51:45 / 10:07		MFR Name: AUDI		MFR Codes: 640 ADX	
	Fuel Container ID: F00023		Fuel Type: 61 Tier 2 Cert Test Fuel		Config #: 00		Transmission: AUTO	
	Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa		Calculation Method: Gasoline		Shift Schedule: A06400035		Beginning Odometer: 004484.0 MI	
	Pretest Remarks:				Drive Schedule: ftp3bag		Soak Period: 19.8 hours	
All filter weights are corrected for buoyancy.								
Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	38186	143.6335	143.6477	0.01418	8.970	2.502	
	B	38187	145.8188	145.8274	0.00857	5.408	1.508	
	C	38188	142.9500	142.9646	0.01459	9.269	2.586	
Remarks:								
Phase 2	A	38189	143.0893	143.0980	0.00868	5.465	1.421	
	B	38190	143.3554	143.3700	0.01458	9.216	2.396	
	C	38191	145.1365	145.1445	0.00797	5.013	1.303	
Remarks:								
Phase 3	A	38192	146.4261	146.4349	0.00876	5.532	1.536	
	B	38193	145.7238	145.7358	0.01197	7.562	2.099	
	C	38194	145.6262	145.6389	0.01267	8.042	2.233	
Remarks:								
Phase 4								
Remarks: <u>This test has particulate results.</u>								
Average Results					Net Wt mg	Total Mass mg	Total Mass mg / mi	
Phase 1					0.01245	7.882	2.199	
Phase 2					0.01041	6.565	1.707	
Phase 3					0.01113	7.046	1.956	
All filter weights are corrected for buoyancy.								
Weighted All Filters:							1.87745	
Reference Filter Stability Check			Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check	Dyno #: D329 - FWD	
2% of Avg Net or 0.01 mg						PASS/FAIL	Inertia: 3875	
0.01	1	143.82859	143.82809	-0.00050	PASS	EPA Set Co A: 15.56		
	2	143.60554	143.60704	0.00150	PASS	EPA Set Co B: -0.1295		
							EPA Set Co C: 0.02613	
Emissions Bench Mexa 7200dle								
v100414 - d329 EPAVDAEm100811092037			Page 1 of 2			Print Time 12-Aug-2010 14:32		

**NVFEL Laboratory Test Data****PARTICULATE**

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-004

Vehicle ID: VW416 80218

WEIGHING CHAMBER	Timestamp	Buoyancy Factor	Operator (id)	Chamber Temp (°F)	Dew Point (°F)	Barometer ("Hg)	Last Change in Status Status @ timestamp
Pre-test	8/10/10 14:21	1.0011129	022298	71.5	49.1	29.04	NORM @ 08/06/10 18:29:09
Post-test	8/12/10 11:57	1.0011080	022298	71.4	48.9	28.91	NORM @ 08/06/10 18:29:09

Test Conditions	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.00	29.00	28.99	
Avg Cell Temp (degF)	74.45	74.83	74.93	
Dew Point (degF)	50.78	51.10	50.94	
Specific Humidity (grains/lbm)	56.92	57.60	57.28	
NOx Corr Factor	0.9217	0.9244	0.9231	
Dilution Factor	13.61	19.54	15.06	
CFV Vmix (scf @68F)	2807.29	4807.71	2800.51	
Sample Volume A (scf @68F)	4.460	7.671	4.457	
Sample Volume B (scf @68F)	4.468	7.645	4.454	
Sample Volume C (scf @68F)	4.439	7.679	4.433	
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	4.455	7.665	4.448	
Total Vmix (scf @68F)	2820.65	4830.71	2813.85	
Phase Time (sec)	506.50	870.20	506.60	
Distance (miles)	3.585	3.846	3.602	
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	41.7	41.3	41.3	
PSU Dil Air B (degC)	43.8	43.3	43.2	
PSU Dil Air C (degC)	40.1	39.9	40.1	
PSU Filter A (degC)	45.0	47.0	44.9	
PSU Filter B (degC)	46.7	46.0	45.4	
PSU Filter C (degC)	44.6	44.6	44.9	
PSU Dil Flow A (lpm)	29.9	30.0	29.9	
PSU Dil Flow B (lpm)	30.0	29.9	29.9	
PSU Dil Flow C (lpm)	29.9	30.0	29.9	
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

CERO
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-007

Vehicle ID: VW416 80218

Test Information



Test Date: 8/11/2010
Key Start: 13:56:49
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 90 US06
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A06400020
Beginning Odometer: 004535.0 MI
Drive Schedule: us06_us06

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.864	49.568	0.703	1.014	2.253	
Ambient	3.176	1.154	0.030	0.043	1.994	
Net Concentration	0.930	48.502	0.675	0.974	0.411	0.486

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks: This test has particulate results.

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.011	1.130	0.024	356.5	0.005	0.006 / 0.006	24.811

(NMOG=1.04xNMHC)



Fuel Economy


Gasoline MPG
Phase 1 24.79

Dyno Settings

Dyno #: D329 - FWD
Inertia: 3875
EPA Set Co A: 15.56
EPA Set Co B: -0.1295
EPA Set Co C: 0.02613

Emissions Bench: Mexa 7200dle

NVFEL Laboratory Test Data							CVS																																																																							
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MFR Test Results for Procedure 90 US06 <table style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;"><u>MFR Number</u></th> <th style="text-align: center;"><u>HC</u></th> <th style="text-align: center;"><u>CO</u></th> <th style="text-align: center;"><u>NOx</u></th> <th style="text-align: center;"><u>CO2</u></th> <th style="text-align: center;"><u>NMOG</u></th> <th style="text-align: center;"><u>NonMeth HC</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">1E+07</td> <td style="text-align: center;">0.024</td> <td style="text-align: center;">2.92</td> <td style="text-align: center;">0.069</td> <td style="text-align: center;">352</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.0151</td> </tr> </tbody> </table> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>Odometer</u> 4426 M </div> <div> <u>MPG</u> 24.9 </div> <div> MFR Lab: Volkswagen AG, Dept EASZ/1 </div> </div> <p style="margin-top: 10px;">MPG is 0.46 % higher than EPA MPG</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div></div> <div> Dyno: 21 Fuel: 61 Tier 2 Cert Gasoline </div> </div> <p style="margin-top: 20px;">I have validated the data in accordance with the requirements of TP 730</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div> Validated By:  </div> <div> Date: 8.12.10 </div> </div>									<u>MFR Number</u>	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>NMOG</u>	<u>NonMeth HC</u>	1E+07	0.024	2.92	0.069	352	0	0.0151																																																								
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1E+07	0.024	2.92	0.069	352	0	0.0151																																																																								

NVFEL Laboratory Test Data						PARTICULATE		
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data								
Test Information		Test Number: 2010-0242-007			Vehicle ID: VW416 80218			
	Test Date: 8/11/2010		MFR Name: AUDI					
	Key Start: 13:56:49		MFR Codes: 640			ADX		
	Fuel Container ID: F00023		Config #: 00					
	Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: AUTO					
	Test Procedure: 90 US06		Shift Schedule: A06400020					
	Calculation Method: Gasoline		Beginning Odometer: 004535.0 MI					
Pretest Remarks:		Drive Schedule: us06_us06						
All filter weights are corrected for buoyancy.								
Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	38180	147.4178	147.4265	0.00867	9.342	1.167	
	B	38181	145.2217	145.2308	0.00909	9.785	1.223	
	C	38182	145.6573	145.6693	0.01199	12.902	1.612	
Remarks:								
Phase 2								
Remarks:								
Phase 3								
Remarks:								
Phase 4								
Remarks: <u>This test has particulate results.</u>								
Average Results					Net Wt mg	Total Mass mg	Total Mass mg / mi	
Phase 1					0.00992	10.676	1.334	
All filter weights are corrected for buoyancy.								
Reference Filter Stability Check			Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check	Dyno #: D329 - FWD	
2% of Avg Net or 0.01 mg			No.			PASS/FAIL	Inertia: 3875	
0.01			1	143.82709	143.82767	0.00058	PASS	EPA Set Co A: 15.56
			2	143.60404	143.60853	0.00449	PASS	EPA Set Co B: -0.1295
								EPA Set Co C: 0.02613
Emissions Bench Mexa 7200dle								
v100414 - d329 EPAVDAEm100811132623			Page 1 of 2			Print Time 12-Aug-2010 13:44		

**NVFEL Laboratory Test Data****PARTICULATE****Final Laboratory Test Results- Refer to VERIFY Reports for Official Data**

Test Number: 2010-0242-007

Vehicle ID: VW416 80218

Vehicle ID: VW410-00210							
WEIGHING CHAMBER	Buoyancy	Operator	Chamber Temp	Dew Point	Barometer	Last Change in Status	
	Timestamp	Factor	(id)	(°F)	(°F)	(°Hg)	Status @ timestamp
Pre-test	8/10/10 13:35	1.0011129	000000	71.5	49.1	29.04	NORM @ 08/06/10 18:29:09
Post-test	8/12/10 12:54	1.0011079	022298	71.4	48.8	28.91	NORM @ 08/06/10 18:29:09

<u>Test Conditions</u>	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.98			
Avg Cell Temp (degF)	74.80			
Dew Point (degF)	51.39			
Specific Humidity (grains/lbm)	58.27			
NOx Corr Factor	0.9271			
Dilution Factor	13.15			
CFV Vmix (scf @68F)	5637.95			
Sample Volume A (scf @68F)	5.250			
Sample Volume B (scf @68F)	5.250			
Sample Volume C (scf @68F)	5.253			
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	5.251			
Total Vmix (scf @68F)	5653.71			
Phase Time (sec)	601.60			
Distance (miles)	8.004			
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	41.5			
PSU Dil Air B (degC)	43.4			
PSU Dil Air C (degC)	40.4			
PSU Filter A (degC)	45.4			
PSU Filter B (degC)	46.5			
PSU Filter C (degC)	45.1			
PSU Dil Flow A (lpm)	29.7			
PSU Dil Flow B (lpm)	29.7			
PSU Dil Flow C (lpm)	29.6			
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 8/13/2010 8:12:27 PM
Subject: RE: Tiquan test results

Looks like they are in Verify now too.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/13/2010 04:10 PM
Subject: RE: Tiquan test results

Thanks, Jim.

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Friday, August 13, 2010 4:04 PM
To: Rodgers, William
Cc: Hart, Robert (VWoA)
Subject: Tiquan test results

Showed up but Hwy is missing.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Fri 8/13/2010 8:14:06 PM
Subject: RE: Tiquan test results
<mailto:Snyder.Jim@epamail.epa.gov>

Yes, I already have them.

Thanks,

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Friday, August 13, 2010 4:12 PM
To: Hart, Robert (VWoA)
Subject: RE: Tiquan test results

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Date: 08/13/2010 04:10 PM
Subject: RE: Tiquan test results

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From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Friday, August 13, 2010 4:04 PM
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Cc: Hart, Robert (VWoA)
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Showed up but Hwy is missing.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Rech, Lothar (I/EA-523)" [Lothar.Rech@AUDI.DE]; Geisen, Anna (I/EA-523)" [anna.geisen@AUDI.DE]; Thomas, Suanne" [Suanne.Thomas@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; oel Ball/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; tephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; inc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; artin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; om Anderson/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Sun 8/15/2010 10:40:16 PM
Subject: Accepted: VW/Audi Meeting with EPA: Misc issues

To: christoph.kohnen@vw.com[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 8/17/2010 1:33:42 PM
Subject: Fw: In-use vehicles scheduled for next week
[In-Use Parameters Form.xls](#)

Hi, Christoph.

We will need the parameters for these vehicles this week. Please get them to me when you can.

Thank you.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 08/11/2010 09:17 AM
Subject: In-use vehicles scheduled for next week

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) - **Ex. 6** 0900 vehicle pick up on 8/17/10
(Tuesday)

N148RXX-0184 (2008 VW/Passat) - **Ex. 6** 0900 vehicle pick up on 8/19/10
(Thursday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures

ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Rodgers, William"
[William.Rodgers@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 8/17/2010 2:59:23 PM
Subject: EPA hwy results of 2011 Tiquan
2011 VW Tiquan HWY.pdf

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

CERT

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-005

Vehicle ID: VW416 80218

Test Information



Test Date: 8/11/2010

Key Start: 11:10:38

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 3

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640 ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A06400036

Beginning Odometer: 004495.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.461	6.688	0.480	1.155	2.469	
Ambient	2.535	0.141	0.026	0.042	2.126	
Net Concentration	1.145	6.559	0.456	1.117	0.526	0.577

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks: This test has particulate results.

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.008	0.089	0.009	237.6	0.004	0.004 / 0.004	37.402

(NMOG=1.04xNMHC)

Fuel Economy

	Gasoline MPG	Coastdown secs:		Dyno Settings	Dyno #: D329 - FWD
Phase 1	37.36		17.76 17.78 17.76		Inertia: 3875
					EPA Set Co A: 15.56
					EPA Set Co B: -0.1295
					EPA Set Co C: 0.02613
			17.76		Emissions Bench: Mexa 7200dle

v1004114 - d329 EPAVDAEm100811104024

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Print Time 16-Aug-2010 13:03

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-005

Vehicle ID: VW416 80218

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.079	0.909	0.096	2432.9	0.042	0.040	1.079

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.00			
Avg Cell Temp (degF)	74.57			
Dew Point (degF)	51.50			
Specific Humidity (grains/lbm)	58.47			
NOx Corr Factor	0.9279			
CO2 Dilution Factor	11.588			
CFV Vmix (scf @68F)	4185.47			
Total Vmix (scf@68F)	4205.44			
CVS Flow Rate Avg (scfm)	328.23			

Fan Placement: One Fan - Down - Front

Phase Time (secs)	765.10
Distance (miles)	10.241
Bag Analysis Time (secs)	74.8

MFR Test Results

for Procedure 3 HWFE

<u>MFR Number</u>	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>NMOG</u>	<u>NonMeth HC</u>
1E+07	0.0081	0.22	0.021	246	0	0.0046

Odometer
4266 M

MPG
36

MPG is -3.65 % lower than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

8-16-10

NVFEL Laboratory Test Data

PARTICULATE

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-005

Vehicle ID: VW416 80218

Test Information



Test Date: 8/11/2010
Key Start: 11:10:38
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 3
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640
Config #: 00
Transmission: AUTO
Shift Schedule: A06400036
Beginning Odometer: 004495.0 MI
Drive Schedule: hwfet_hwfet

All filter weights are corrected for buoyancy.

Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	38177	147.5069	147.5235	0.01666	10.443	1.020	
	B	38178	146.5628	146.5791	0.01627	10.210	0.997	
	C	38179	144.7838	144.7892	0.00546	3.501	0.342	

Remarks:

Phase 2

Remarks:

Phase 3

Remarks:

Phase 4

Remarks: This test has particulate results.

Average Results

	Net Wt mg	Total Mass mg	Total Mass mg / mi
Phase 1	0.01280	8.051	0.786

All filter weights are corrected for buoyancy.

Reference Filter Stability Check

2% of Avg Net or 0.01 mg	No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check PASS/FAIL	Dyno #: D329 - FWD Inertia: 3875
0.01	1	143.82709	143.82896	0.00187	PASS	EPA Set Co A: 15.56
	2	143.60404	143.60691	0.00287	PASS	EPA Set Co B: -0.1295
						EPA Set Co C: 0.02613

Emissions Bench Mexa 7200dle

**NVFEL Laboratory Test Data****PARTICULATE**

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-005

Vehicle ID: VW416 80218

WEIGHING CHAMBER		Buoyancy	Operator	Chamber Temp	Dew Point	Barometer	Last Change in Status
	Timestamp	Factor	(id)	(°F)	(°F)	("Hg)	Status @ timestamp
Pre-test	8/10/10 13:35	1.0011129	022298	71.5	49.1	29.04	NORM @ 08/06/10 18:29:09
Post-test	8/12/10 14:21	1.0011071	022298	71.6	48.7	28.90	NORM @ 08/06/10 18:29:09

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.00			
Avg Cell Temp (degF)	74.57			
Dew Point (degF)	51.50			
Specific Humidity (grains/lbm)	58.47			
NOx Corr Factor	0.9279			
Dilution Factor	11.59			
CFV Vmix (scf @68F)	4185.47			
Sample Volume A (scf @68F)	6.710			
Sample Volume B (scf @68F)	6.700			
Sample Volume C (scf @68F)	6.564			
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	6.658			
Total Vmix (scf @68F)	4205.44			
Phase Time (sec)	765.10			
Distance (miles)	10.241			
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	41.5			
PSU Dil Air B (degC)	43.3			
PSU Dil Air C (degC)	40.2			
PSU Filter A (degC)	45.3			
PSU Filter B (degC)	47.8			
PSU Filter C (degC)	45.7			
PSU Dil Flow A (lpm)	29.8			
PSU Dil Flow B (lpm)	29.8			
PSU Dil Flow C (lpm)	29.9			
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

v100414 - d329 EPAVDAEm100811104024

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Print Time 16-Aug-2010 13:04

Paired Data Offset of ≥3% Report

MFR		Num	Load					
Audi		640	MPH	EPA Lbs	Mfr. Lbs.	Delta %	target	veh EPA veh Mfr
VID:	VW416 80218		10	16.878	24.34	44.21%	40.81	23.932 16.47
	Config 0		20	23.422	29.7	26.80%	49.56	26.138 19.86
			30	35.192	40.08	13.89%	63.25	28.058 23.17
			40	52.188	55.48	6.31%	81.88	29.692 26.4
			50	74.41	75.9	2.00%	105.45	31.04 29.55
			60	101.858	101.34	-0.51%	133.96	32.102 32.62

Test Numbers Date Dyno
 242004 FTP 8/11/10 D329
 242005 HFET 8/11/10 D329
 US06

Vehicle+Set= Target

Offset Summary Quickcheck CD % Diff -4.63%

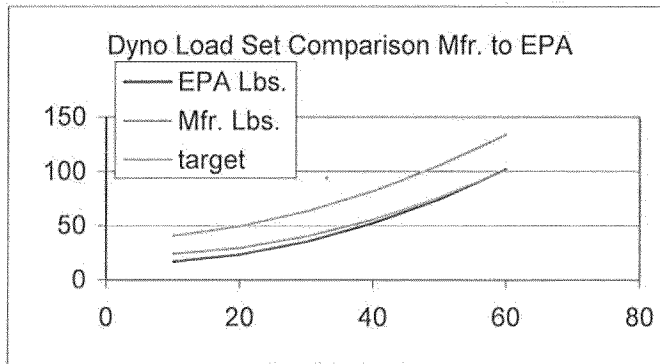
		EPA	MFG	Mfg Diff%			EPA	MFG	Mfg Diff%
FTP	FE	22.73	23.4	2.95%	US06	FE (Bag2)			#DIV/0!
	THC	0.02533	0.0202	-20.25%		FE (Total)			#DIV/0!
	CO	0.47508	0.49	3.14%		THC			#DIV/0!
	NOx	0.01677	0.02	19.26%		CO			#DIV/0!
	CO2	389.924	378.000	-3.06%		NOx			#DIV/0!
	CH4			#DIV/0!		CO2			#DIV/0!
	NMHC	0.021	0.015	-28.57%		CH4			#DIV/0!
						NMHC			#DIV/0!

HFET	FE	37.36	36	-3.64%	Dyno Set			
	THC	0.008	0.0081	1.25%	Coeffs.	EPA	MFG	Target
	CO	0.089	0.22	147.19%		A	15.56	24 37
	NOx	0.009	0.021	133.33%		B	-0.1295	-0.217 0.134
	CO2	237.6	246	3.54%		C	0.02613	0.0251 0.0247
	CH4			#DIV/0!				
	NMHC	0.004	0.0046	15.00%				

Finding: FTP Test results and related information indicate results are valid
 HFET Test results and related information indicate results are valid
 US06

Observations on finding:

- 1 EPA RLD values within 1 lb.
- 2
- 3



Results reviewed by

De 1 BM
 Signature

8/16/10
 Date

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: []

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Tue 8/17/2010 3:02:54 PM

Subject: Audi Meeting with EPA: Discussion topics

Audi AG has provided a more refined list of discussion topics. These are shown below:

EPA Meeting

- * Idle stop system – Last mode strategy
- * Worst case mode for emission certification and OBD emission impact tests
- * EPA position on Evap Test procedure for PHEV
- * HEV application for certification
- * New emission related components for MY 2012 GHG
- * MIL on and additional information / text message
- * Audi Hybrid and battery cooling at the dynamometer
- * Clarification of dynamometer test mode for future vehicles

See you on Thursday.

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: []

Bcc: []

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Tue 8/17/2010 3:02:58 PM

Subject: Audi Meeting with EPA: Discussion topics

Audi AG has provided a more refined list of discussion topics. These are shown below:

EPA Meeting

- * Idle stop system – Last mode strategy
- * Worst case mode for emission certification and OBD emission impact tests
- * EPA position on Evap Test procedure for PHEV
- * HEV application for certification
- * New emission related components for MY 2012 GHG
- * MIL on and additional information / text message
- * Audi Hybrid and battery cooling at the dynamometer
- * Clarification of dynamometer test mode for future vehicles

See you on Thursday.

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Kohnen, Christoph (VWGoA)"
Sent: Tue 8/17/2010 8:33:47 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

I am actually in Germany. Stuart Johnson, Manager at EEO is informed to help you. Please send him a copy of any mail you send to me.

Thank you!

Kind regards

Christoph

Dr. Christoph Kohnen

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4201
Cell: (248) 408-7548
FAX: (248) 754-4207
E-Mail: christoph.kohnen@vw.com

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, August 17, 2010 9:34 AM
To: Kohnen, Christoph (VWGoA)
Subject: Fw: In-use vehicles scheduled for next week

Hi, Christoph.

We will need the parameters for these vehicles this week. Please get them to me when you can.

Thank you.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>

Date: 08/11/2010 09:17 AM

Subject: In-use vehicles scheduled for next week

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) **Ex. 6** 0900 vehicle pick up on 8/17/10 (Tuesday)

N148RXX-0184 (2008 VW/Passat) **Ex. 6** 0900 vehicle pick up on 8/19/10 (Thursday)

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)

To: "Johnson, Stuart" [Stuart.Johnson@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 8/17/2010 8:54:55 PM
Subject: Fw: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 04:54 PM -----

From: Lynn Sohacki/AA/USEPA/US
To: christoph.kohnen@vw.com
Date: 08/17/2010 09:33 AM
Subject: Fw: In-use vehicles scheduled for next week

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Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 08/11/2010 09:17 AM
Subject: In-use vehicles scheduled for next week

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Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) { Ex. 6 }, 0900 vehicle pick up on 8/17/10
(Tuesday)

N148RXX-0184 (2008 VW/Passat) { Ex. 6 }, 0900 vehicle pick up on 8/19/10
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fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

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ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 8/17/2010 8:55:11 PM
Subject: Re: Diesel Shift Tables

Bob, since this diesel uses the same schedules as the gas engines, is the US06 the same as the Tiquan we just tested? It uses 0035, 0036, and 0020 for US06.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/13/2010 08:47 AM
Subject: Diesel Shift Tables

Hello Jim,

According to our diesel cert engineer, shift tables 590 0035 (FTP) and 590 0036 (HFET) can be used as indicated in the MY 2009 Application Common Sections (Section 12). These shift tables should already be in the EPA Lab database. They are the standard VW gasoline engine M6 shift tables.

Here are the upshift points by speed.

UP-SHIFT

1 - 2 15 mph
2 - 3 25 mph
3 - 4 40 mph
4 - 5 47 mph
5 - 6 52 mph

Due to the gear ratios in the diesel transmission the following declutch points must be used:

DECLUTCH

6 - 0 30 mph
5 - 0 25mph
4 - 0 20mph

I am still waiting for the US06 schedule.

Best regards,

Bob Hart

From: Hart, Robert (VWoA)
Sent: Wednesday, August 11, 2010 4:00 PM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Diesel Shift Tables

Hello Jim,

I will contact Germany for to see if any of the shift tables currently in the system will work for the M6 diesel.
I should have an answer for you by the end of the week.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Johnson, Stuart" [Stuart.Johnson@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 8/17/2010 8:57:10 PM
Subject: Resend Fw: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Stuart.

Sorry the last e-mail got sent before I had a chance to write something.

Christoph said you would be able to get parameters for me. The needed information is on the form below. Please let me know if you have any questions.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 04:55 PM -----

From: Lynn Sohacki/AA/USEPA/US
To: christoph.kohnen@vw.com
Date: 08/17/2010 09:33 AM
Subject: Fw: In-use vehicles scheduled for next week

Hi, Christoph.

We will need the parameters for these vehicles this week. Please get them to me when you can.

Thank you.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 08/11/2010 09:17 AM
Subject: In-use vehicles scheduled for next week

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) - **Ex. 6** 0900 vehicle pick up on 8/17/10 (Tuesday)

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Please send the following to me for these vehicles before pick-up. Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/18/2010 11:32:27 AM
Subject: RE: Diesel Shift Tables

Hello Jim,

The shift schedules for the diesel use the same upshift points as the gasoline engines for the FTP and HWY but the declutch points are different as noted in my original message.

The cert engineer said that he will have to get back to me on the US06 shift schedule. The diesel may require additional downshifts for the US06.

Bob Hart

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, August 17, 2010 4:55 PM
To: Hart, Robert (VWoA)
Subject: Re: Diesel Shift Tables

Bob, since this diesel uses the same schedules as the gas engines, is the US06 the same as the Tiquan we just tested? It uses 0035, 0036, and 0020 for US06.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:
"Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To:
Jim Snyder/AA/USEPA/US@EPA

Date:
08/13/2010 08:47 AM

Subject:
Diesel Shift Tables

Hello Jim,

According to our diesel cert engineer, shift tables 590 0035 (FTP) and 590 0036 (HFET) can be used as indicated in the MY 2009 Application Common Sections (Section 12). These shift tables should already be in the EPA Lab database. They are the standard VW gasoline engine M6 shift tables.

Here are the upshift points by speed.

UP-SHIFT

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4 - 5 47 mph

5 - 6 52 mph

Due to the gear ratios in the diesel transmission the following declutch points must be used:

DECLUTCH

6 - 0 30 mph

5 - 0 25mph

4 - 0 20mph

I am still waiting for the US06 schedule.

Best regards,

Bob Hart

From: Hart, Robert (VWoA)
Sent: Wednesday, August 11, 2010 4:00 PM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Diesel Shift Tables

Hello Jim,

I will contact Germany for to see if any of the shift tables currently in the system will work for the M6 diesel.
I should have an answer for you by the end of the week.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Johnson, Stuart"
Sent: Wed 8/18/2010 11:49:01 AM
Subject: RE: Resend Fw: In-use vehicles scheduled for next week

Hello Lynn,

Thanks for the email. I think you saw a note from Christoph referring you to me. I meant to tell you in the future you can send all information regarding testing to me, Sebastian Berenz and Dennis Reineke.

Sebastian works in my department and has taken over the IUVP job from Edy Popa for the next three years. Edy has returned to Germany. Sebastian's email is sebastian.berenz@vw.com

Dennis is a longtime member of our group and has prior in-use and laboratory experience, so he can act as a back-up if Sebastian or I am not available. Over the past few years your surveillance letters have come to Dennis. We left it that way because we thought for continuity it was better to have a US contact. Dennis' email is dennis.reineke@vw.com

Sebastian was out at your laboratory yesterday inspecting your first Passat and gave your staff the testing parameters. I saw your request to send the information to you electronically and we will do that. We are still waiting for a canister procedure from Germany and will send it as soon as it is received. We expect it this week.

Best Regards,

Stuart

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Tuesday, August 17, 2010 4:57 PM

To: Johnson, Stuart

Subject: Resend Fw: In-use vehicles scheduled for next week

Hi, Stuart.

Sorry the last e-mail got sent before I had a chance to write something.

Christoph said you would be able to get parameters for me. The needed information is on the form below. Please let me know if you have any questions.

Thanks.

Lynn Sohacki
Environmental Protection Agency

734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 04:55 PM -----

From: Lynn Sohacki/AA/USEPA/US

To: christoph.kohnen@vw.com

Date: 08/17/2010 09:33 AM

Subject: Fw: In-use vehicles scheduled for next week

Hi, Christoph.

We will need the parameters for these vehicles this week. Please get them to me when you can.

Thank you.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US

To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>

Date: 08/11/2010 09:17 AM

Subject: In-use vehicles scheduled for next week

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) - **Ex. 6**, 0900 vehicle
pick up on 8/17/10 (Tuesday)

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pick up on 8/19/10 (Thursday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for
relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include
explicit directions and, if necessary, pictures for:

*disabling traction control, stability control and any load
leveling the vehicle may have*
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to
our contractor, EG&G, and lab personnel. Paper copies or e-mails sent
directly to EG&G or lab personnel may result in incorrect information
being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Reisner, Axel, Dr. (EASZ/1)" [axel.reisner@volkswagen.de]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/18/2010 1:01:04 PM
Subject: Retest Request for VW Tiguan - VW416 80218 cfg. 0

Hello Jim,

I informed Vince Mazaitis that Volkswagen has requested a retest of the FTP and HWFET for the VW Tiguan – VW416 80218 cfg. 0.

Both fuel economy values are more than 3% different from the manufacturer test results.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA[]
Cc: "Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Berenz, Sebastian"
Sent: Wed 8/18/2010 3:16:11 PM
Subject: In-use vehicles scheduled VW
Fuel Drain Instructions.pdf
[In-Use Parameters Form N148RXX-0092](#)

Ex. 6

 .xls
[In-Use Parameters Form N148RXX-0184](#)

Ex. 6

 .xls
sebastian.berenz@vw.com

Hello Mrs. Sohacki,

Attached you will find the required information for both cars you already have received for the surveillance program of our 8ADXV02.0366 test group.

Please let me know if you have any questions.

Sebastian Berenz

Manager In-Use Emission Compliance

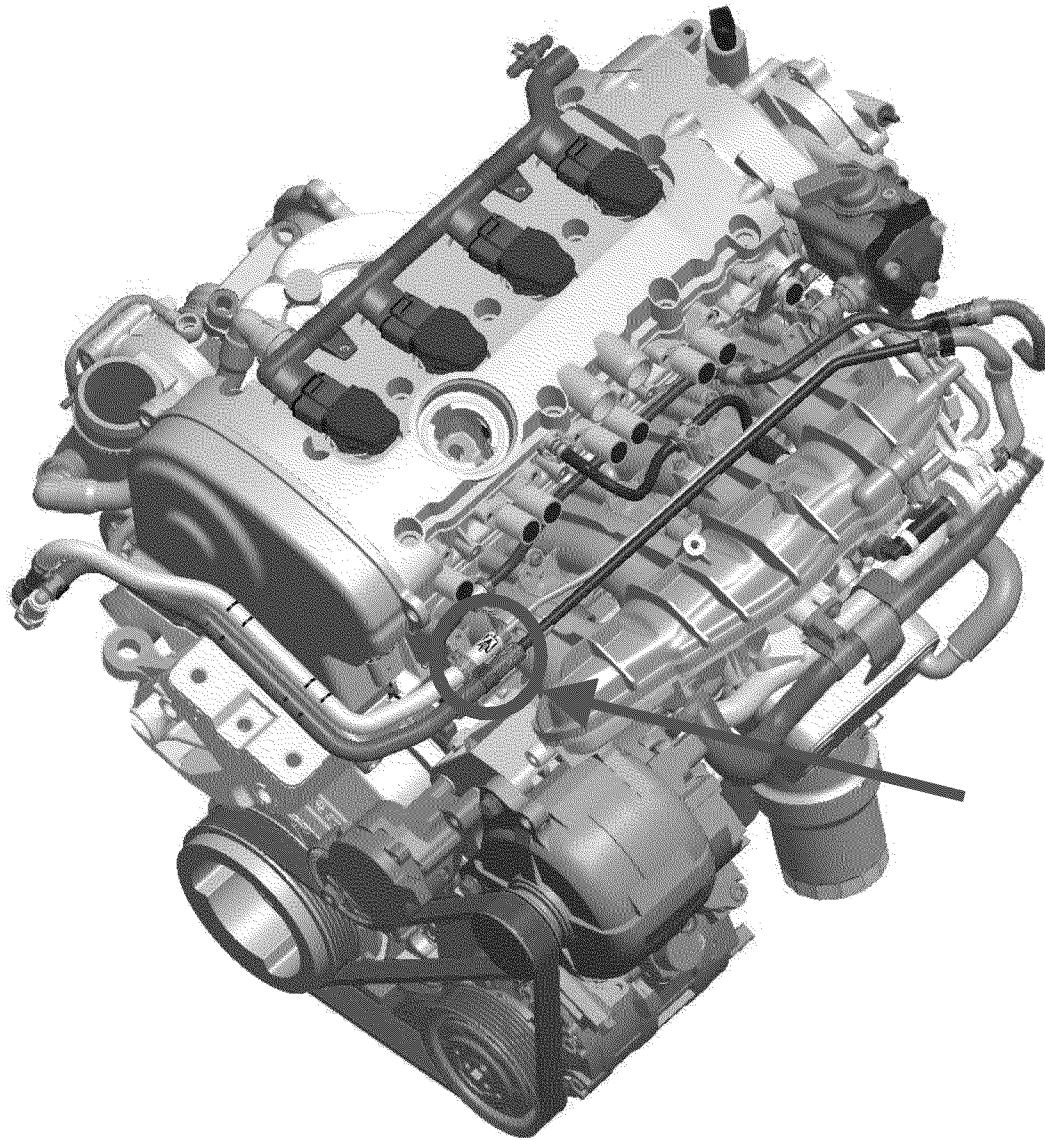
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

Fuel Drain

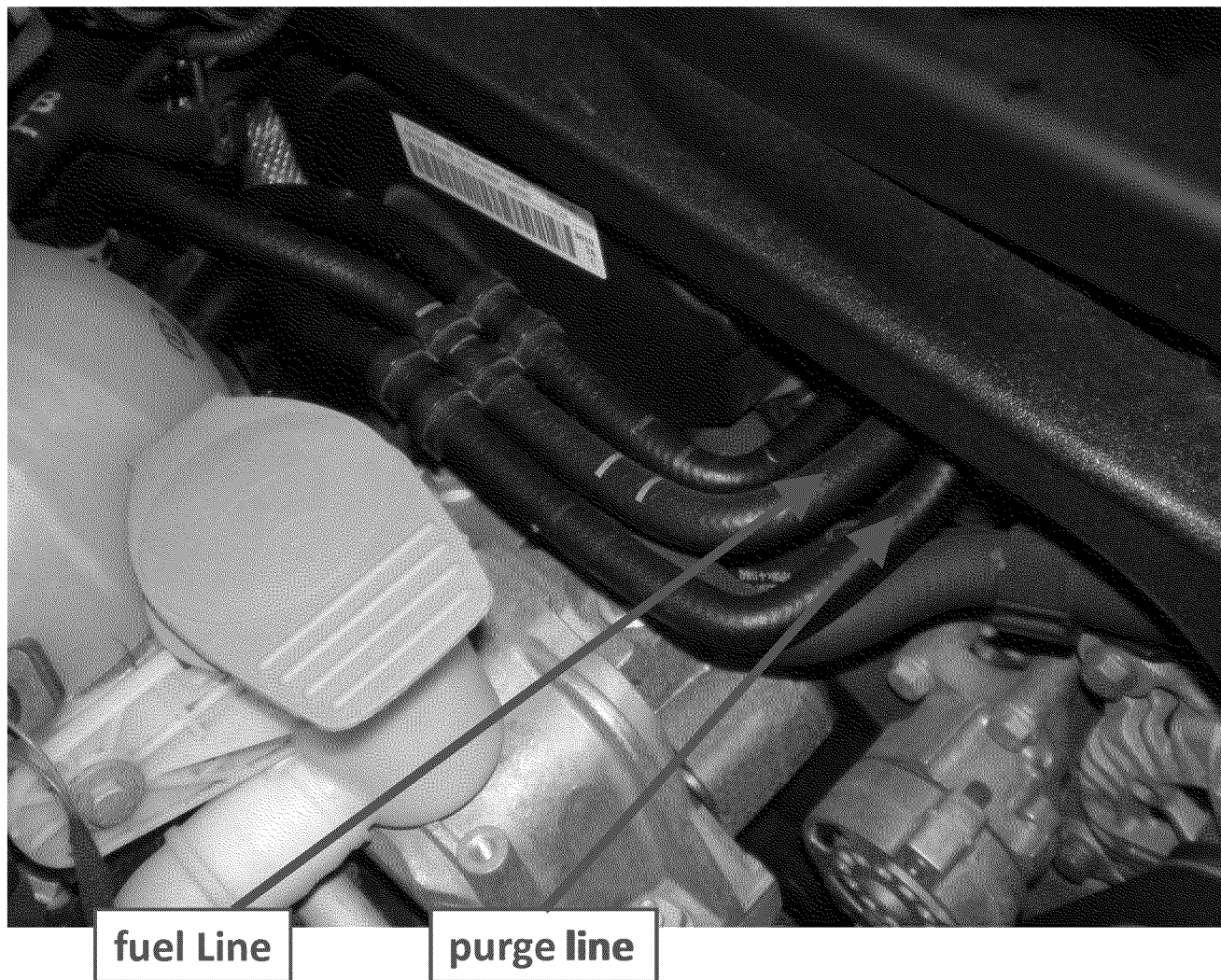


1. Remove Engine Cover

Access to Fuel Line and
Purge Line Connections

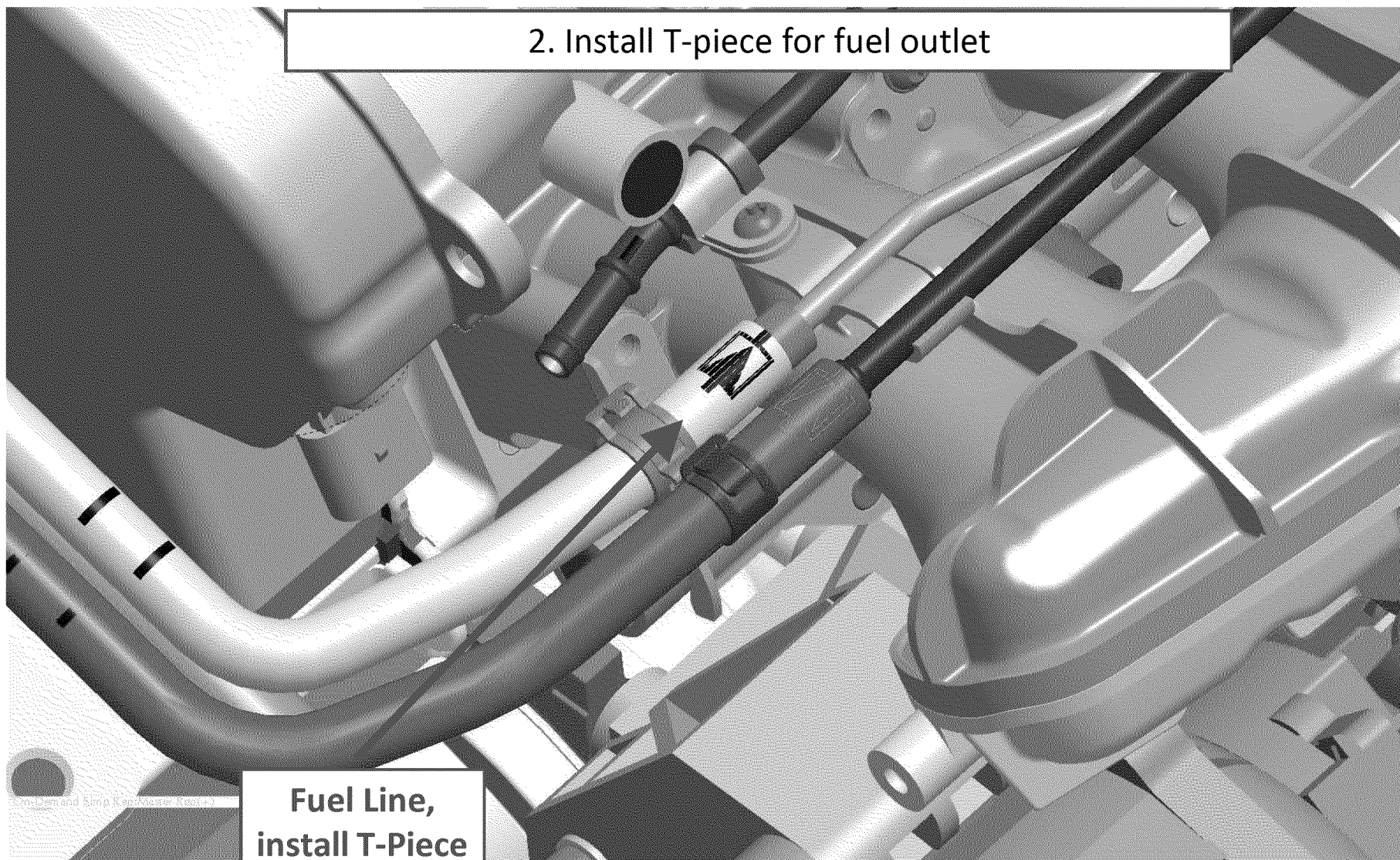
Fuel Drain

overview



Fuel Drain

2. Install T-piece for fuel outlet



Fuel Drain, Canister Load Port

1. Remove Engine Cover
2. Install T-piece in fuel line and prepare to drain system
3. Activate 12v fuel pump until no more fuel flows.
(Should flow with key in on position without engine running. If not, use necessary means to supply fuel pump with 12v)

Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)

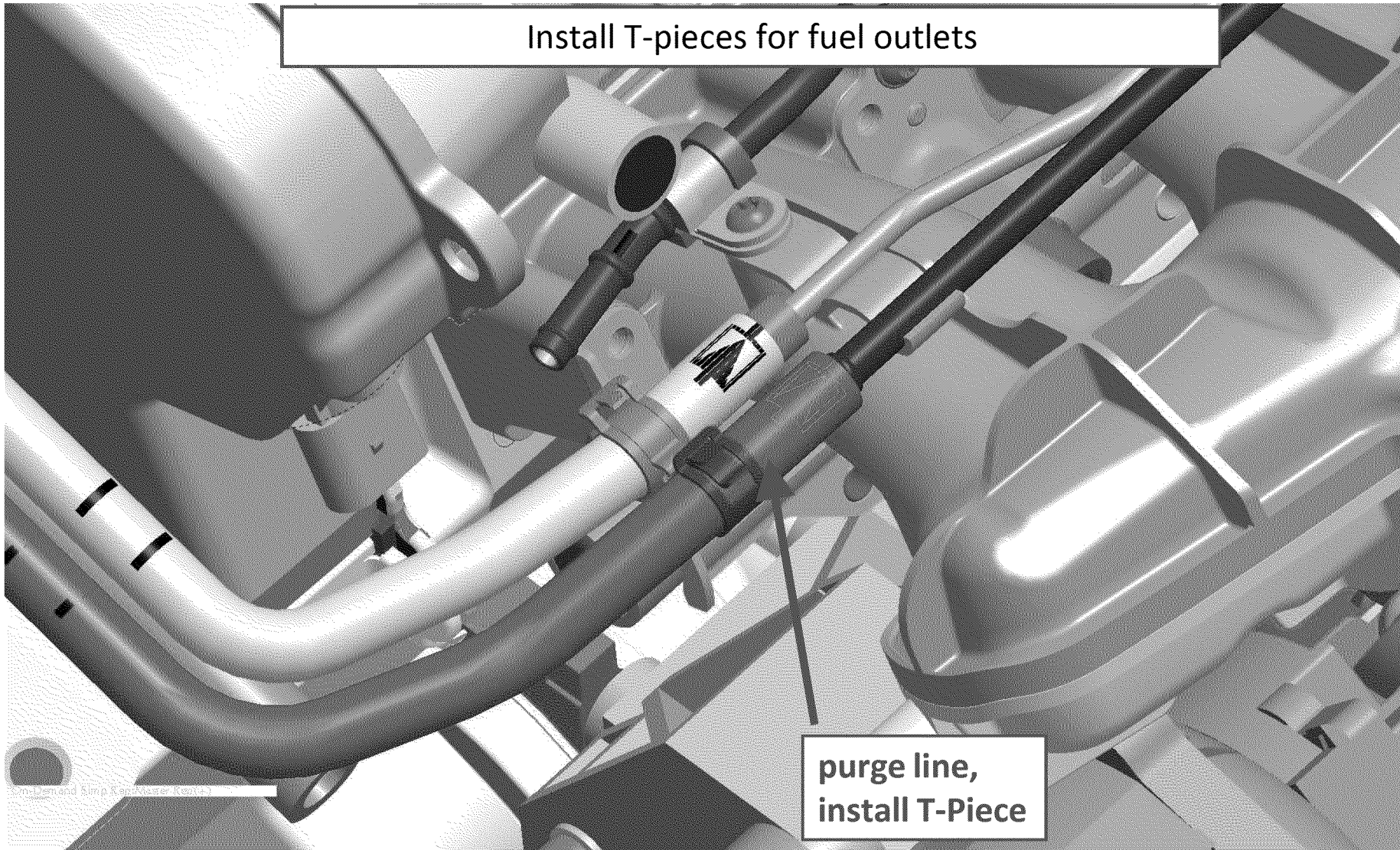


Carbon canister is placed in the wheel housing behind the wheel housing liner on the right side of the vehicle.

1. Remove wheel on the right in the back of the vehicle
2. Remove the wheel housing liner
3. Now you have access to the carbon canister

Canister Load Port

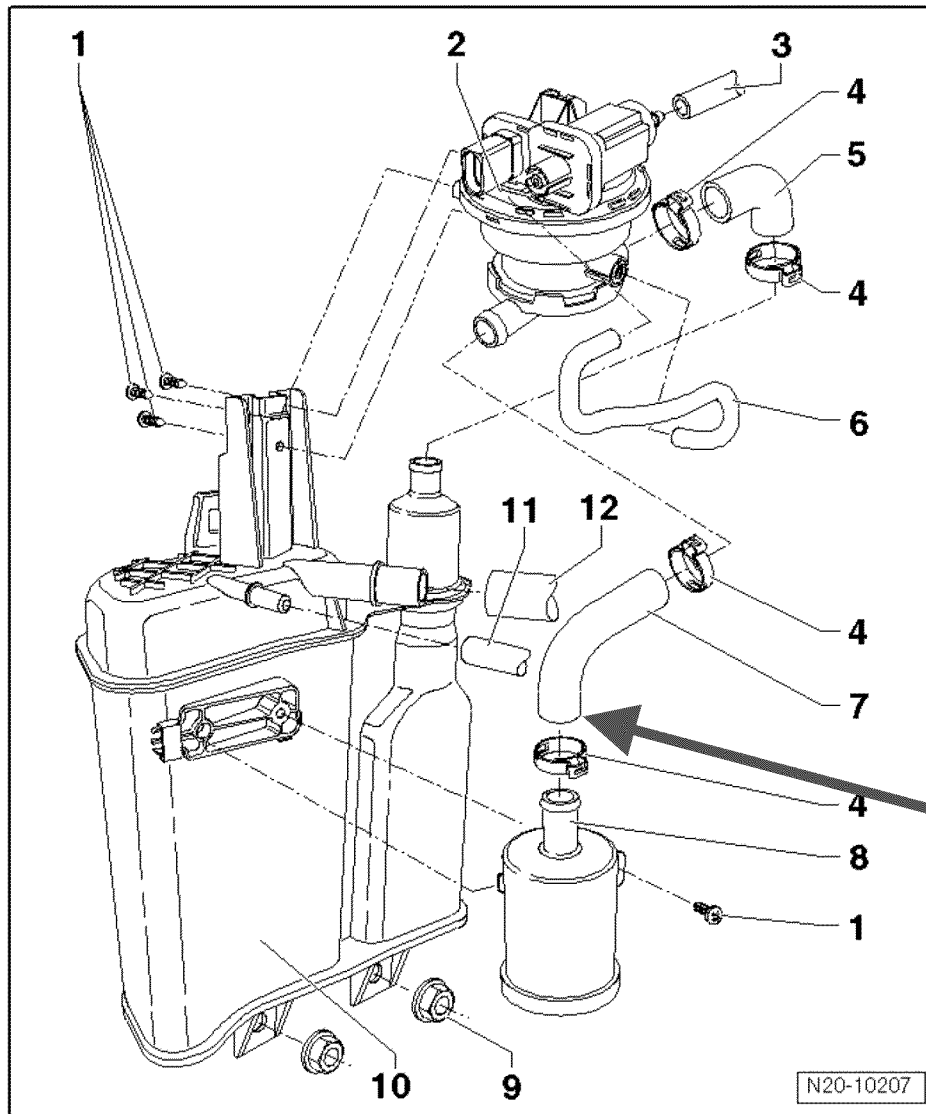
Install T-pieces for fuel outlets



purge line,
install T-Piece

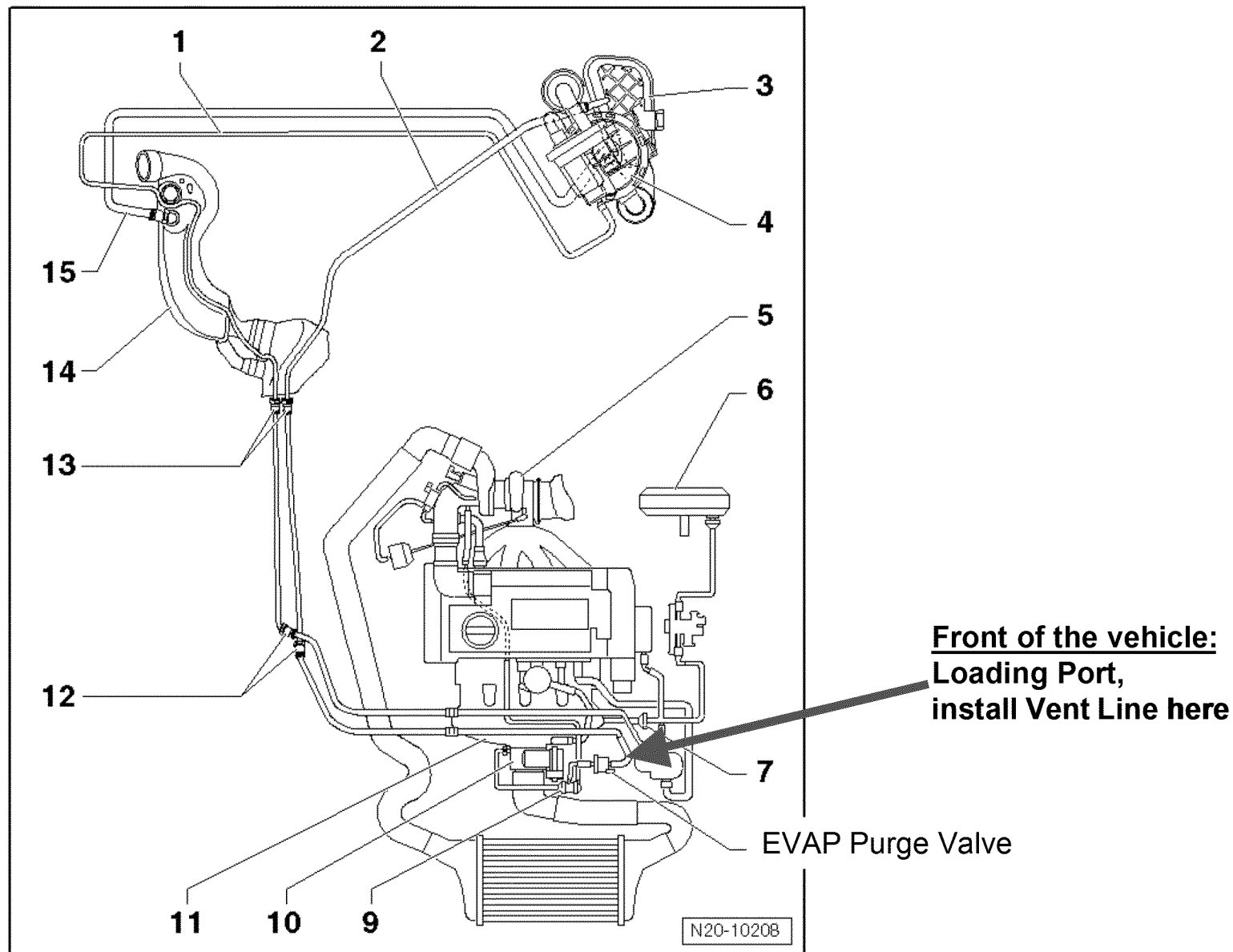
Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)



**Ventilation Port,
install Vent Line here**

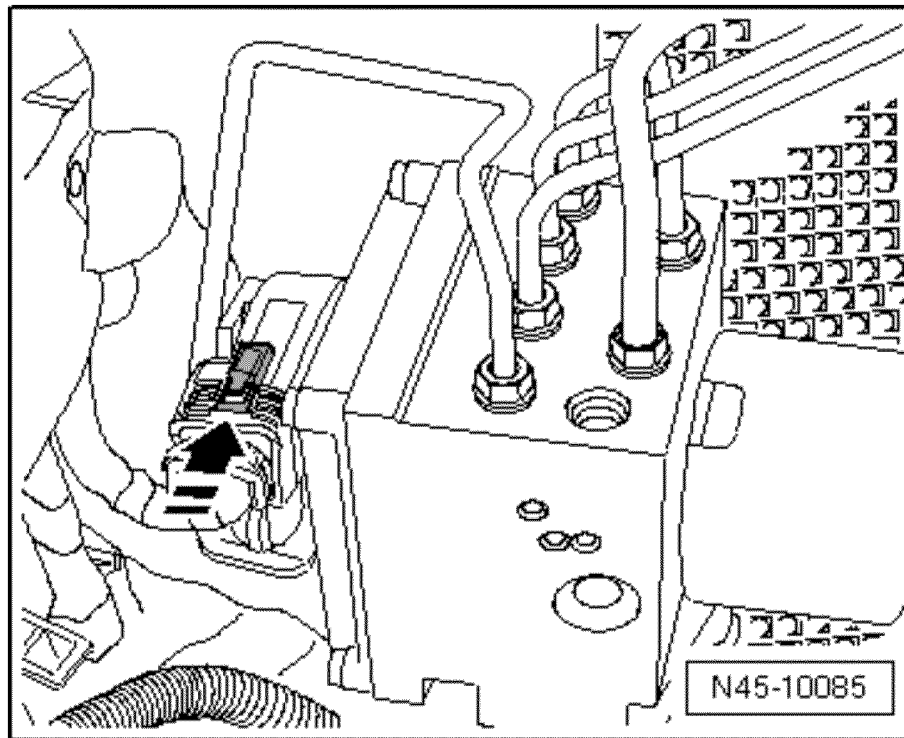
Structure of the Evap. System for Canister Loading/Purging



ABS disabling process

ESP SYSTEM DEACTIVATION:

- Remove the Plug on the ABS control unit (Engine Compartment)





National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required)

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p) N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required)

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpg

C Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p) N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/18/2010 3:55:21 PM
Subject: Re: Retest Request for VW Tiguan - VW416 80218 cfg. 0

Bob, do you know if Bentley is considering a retest on the US06? If so, we should do it before we switch fuels on monday.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Reisner, Axel, Dr. (EASZ/1)" <axel.reisner@volkswagen.de>
Date: 08/18/2010 09:01 AM
Subject: Retest Request for VW Tiguan - VW416 80218 cfg. 0

Hello Jim,

I informed Vince Mazaitis that Volkswagen has requested a retest of the FTP and HWFET for the VW Tiguan – VW416 80218 cfg. 0.
Both fuel economy values are more than 3% different from the manufacturer test results.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/18/2010 5:37:15 PM
Subject: RE: Retest Request for VW Tiguan - VW416 80218 cfg. 0

I will let you know Bentley's answer first thing in the morning.

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Wednesday, August 18, 2010 11:55 AM
To: Hart, Robert (VWoA)
Cc: Mazaitis.Vincent@epamail.epa.gov
Subject: Re: Retest Request for VW Tiguan - VW416 80218 cfg. 0

Bob, do you know if Bentley is considering a retest on the US06? If so, we should do it before we switch fuels on monday.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Reisner, Axel, Dr. (EASZ/1)" <axel.reisner@volkswagen.de>
Date: 08/18/2010 09:01 AM
Subject: Retest Request for VW Tiguan - VW416 80218 cfg. 0

Hello Jim,

I informed Vince Mazaitis that Volkswagen has requested a retest of the FTP and HWFET for the VW Tiguan – VW416 80218 cfg. 0.

Both fuel economy values are more than 3% different from the manufacturer test results.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

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3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; inc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; artin Reineman/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; om Anderson/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Wed 8/18/2010 5:50:13 PM
Subject: RE: Audi Meeting with EPA: Discussion topics
00_final 08-19-2010.pdf

Hello everyone:

I have attached a copy of the presentation materials that we wish to discuss during our meeting tomorrow. I will bring a few copies and our portable projector to show the slides.

See you at 1 p.m. tomorrow (Aug. 19, 2010).

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, August 17, 2010 11:03 AM
To: Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; Kata, Leonard; Healy.Stephen@epamail.epa.gov; Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Anderson.Tom@epamail.epa.gov
Subject: Audi Meeting with EPA: Discussion topics

Audi AG has provided a more refined list of discussion topics. These are shown below:

EPA Meeting

- * Idle stop system – Last mode strategy
- * Worst case mode for emission certification and OBD emission impact tests
- * EPA position on Evap Test procedure for PHEV
- * HEV application for certification
- * New emission related components for MY 2012 GHG
- * MIL on and additional information / text message
- * Audi Hybrid and battery cooling at the dynamometer
- * Clarification of dynamometer test mode for future vehicles

See you on Thursday.

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/18/2010 8:00:38 PM
Subject: Another Test Waiver Request Coming Soon

Hello Jim,

There is another test waiver request coming soon. This time for the Audi TT in Test Group BADXT02.03UA.

An additional engine is being added to the test group as a running change- fuel economy only – not a new worst case.

Also, I have seen the retest schedule for VW614 80218 in the VERIFY System.

Best regards,

Bob

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Johnson, Stuart" [Stuart.Johnson@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 8/18/2010 8:15:20 PM
Subject: RE: Resend Fw: In-use vehicles scheduled for next week

Hi, Stuart.

Thank you for the e-mail. I'll include you, Sebastian and Dennis in my testing information. I'll look forward to receiving the canister loading procedure.

Regards,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Johnson, Stuart" <Stuart.Johnson@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 08/18/2010 07:49 AM
Subject: RE: Resend Fw: In-use vehicles scheduled for next week

Hello Lynn,

Thanks for the email. I think you saw a note from Christoph referring you to me. I meant to tell you in the future you can send all information regarding testing to me, Sebastian Berenz and Dennis Reineke.

Sebastian works in my department and has taken over the IUVP job from Edy Popa for the next three years. Edy has returned to Germany. Sebastian's email is sebastian.berenz@vw.com

Dennis is a longtime member of our group and has prior in-use and laboratory experience, so he can act as a back-up if Sebastian or I am not available. Over the past few years your surveillance letters have come to Dennis. We left it that way because we thought for continuity it was better to have a US contact. Dennis' email is dennis.reineke@vw.com

Sebastian was out at your laboratory yesterday inspecting your first Passat and gave your staff the testing parameters. I saw your request to send the information to you electronically and we will do that. We are still waiting for a canister procedure from Germany and will send it as soon as it is received. We expect it this week.

Best Regards,

Stuart

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Tuesday, August 17, 2010 4:57 PM

To: Johnson, Stuart

Subject: Resend Fw: In-use vehicles scheduled for next week

Hi, Stuart.

Sorry the last e-mail got sent before I had a chance to write something.

Christoph said you would be able to get parameters for me. The needed information is on the form below. Please let me know if you have any questions.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 04:55 PM -----

From: Lynn Sohacki/AA/USEPA/US

To: christoph.kohnen@vw.com

Date: 08/17/2010 09:33 AM

Subject: Fw: In-use vehicles scheduled for next week

Hi, Christoph.

We will need the parameters for these vehicles this week. Please get

them to me when you can.

Thank you.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 08/17/2010 09:32 AM -----

From: Lynn Sohacki/AA/USEPA/US

To: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>

Date: 08/11/2010 09:17 AM

Subject: In-use vehicles scheduled for next week

Good morning.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0092 (2008 VW/Passat) - Ex. 6 0900 vehicle
pick up on 8/17/10 (Tuesday)

N148RXX-0184 (2008 VW/Passat) - Ex. 6 0900 vehicle
pick up on 8/19/10 (Thursday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for
relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax


(See attached file: In-Use Parameters Form.xls)

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Rodgers, William" [William.Rodgers@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 8/19/2010 12:18:28 PM
Subject: Fw: VW36100250 Lab Test Report
VW36100250 8-18-10.pdf

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov
----- Forwarded by Jim Snyder/AA/USEPA/US on 08/19/2010 08:17 AM -----

From: Vincent Mazaitis/AA/USEPA/US
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/19/2010 06:50 AM
Subject: VW36100250 Lab Test Report

CER

NVFEL Laboratory Test Data							
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data							
Test Number: 2010-0225-005				Vehicle ID: VW36100250			
<div style="display: flex; justify-content: space-between;"> <div>  </div> <div> <p>Test Information</p> <p>Test Date: 8/18/2010</p> <p>Key Start / Hot Soak: 07:10:58 / 09:42</p> <p>Fuel Container ID: F00023</p> <p>Fuel Type: 61 Tier 2 Cert Test Fuel</p> <p>Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa)</p> <p>Calculation Method: Gasoline</p> <p>Pretest Remarks:</p> </div> <div> <p>MFR Name: VOLKSWAGEN</p> <p>MFR Codes: 590 VWX</p> <p>Config #: 00</p> <p>Transmission: AUTO</p> <p>Shift Schedule: A09980005</p> <p>Beginning Odometer: 003378.0 MI</p> <p>Drive Schedule: ftp3bag</p> <p>Soak Period: 16.6 hours</p> </div> </div>							
Bag Data							
		HC-FID	CO	NOx	CO2	CH4	NonMeth HC
		(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Phase 1							
Sample		12.580	49.678	1.200	0.864	2.841	
Ambient		2.536	0.000	0.017	0.044	2.025	
Net Concentration		10.208	49.678	1.184	0.822	0.947	9.126
Remarks:							
Phase 2							
Sample		3.281	3.056	0.028	0.549	2.232	
Ambient		2.467	0.000	0.016	0.044	2.023	
Net Concentration		0.915	3.056	0.013	0.507	0.293	0.580
Remarks:							
Phase 3							
Sample		3.555	7.269	0.139	0.760	2.305	
Ambient		2.421	0.000	0.027	0.044	2.010	
Net Concentration		1.271	7.269	0.113	0.718	0.409	0.804
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks:							
Results							
		HC-FID	CO	NOx	CO2	CH4	NMHC / NMOG
		(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)
Phase 1		0.128	1.261	0.045	328.1	0.014	0.115 / 0.119
Phase 2		0.018	0.124	0.001	322.9	0.007	0.012 / 0.012
Phase 3		0.016	0.186	0.004	288.6	0.006	0.010 / 0.011
Weighted		0.04056	0.37686	0.01086	314.550	0.00802	0.0326 / 0.0339
		(NMOG=1.04xNMHC)					
Fuel Economy							
		Gasoline MPG					Dyno Settings
Phase 1		26.87					Dyno #: D329 - FWD
Phase 2		27.49					Inertia: 3250
Phase 3		30.74					EPA Set Co A: 5.22
							EPA Set Co B: 0.379
							EPA Set Co C: 0.01389
Weighted		28.13					Emissions Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-005

Vehicle ID: VW36100250

Results	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.459	4.512	0.160	1174.0	0.049	0.411	1.143
Phase 2	0.071	0.476	0.003	1239.4	0.026	0.045	
Phase 3	0.058	0.664	0.015	1031.2	0.021	0.036	



Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.16	29.16	29.16	
Avg Cell Temp (degF)	75.29	74.74	74.50	
Dew Point (degF)	49.33	48.94	48.67	
Specific Humidity (grains/lbm)	53.59	52.80	52.26	
NOx Corr Factor	0.9086	0.9055	0.9035	
CO2 Dilution Factor	15.397	24.372	17.604	
CFV Vmix (scf @68F)	2755.09	4720.13	2770.28	
CVS Flow Rate Avg (scfm)	326.30	325.79	328.10	
Fan Placement: One Fan - Down - Front				
Phase Time (secs)	506.60	869.30	506.60	
Distance (miles)	3.578	3.838	3.573	
Bag Analysis Time (secs)	878.8	1103.5	121.0	

MFR Test Results

for Procedure 21 Federal fuel 2-day exhaust (w/can load)

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0347	0.45	0.0132	324	0	0.0302

Odometer	MPG	PM
3164 M	27.3	0.002

MPG is -2.96 % lower than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

8-18-10

CERT
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-006

Vehicle ID: VW36100250

Test Information



Test Date: 8/18/2010

Key Start: 08:30:01

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 3

Calculation Method: Gasoline

Pretest Remarks:

MFR Name VOLKSWAGEN

MFR Codes: 590 VWX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 003389.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.283	5.820	0.089	1.055	2.429	
Ambient	2.430	0.000	0.014	0.043	2.001	
Net Concentration	1.045	5.820	0.076	1.016	0.585	0.376

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.007	0.078	0.002	213.3	0.004	0.002 / 0.003	41.662

(NMOG=1.04xNMHC)

Fuel Economy

Gasoline MPG
Phase 1 41.62

Dyno Settings

Dyno #: D329 - FWD

Inertia: 3250

EPA Set Co A: 5.22

EPA Set Co B: 0.379

EPA Set Co C: 0.01389

Emissions Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data
Test Number: 2010-0225-006

Vehicle ID: VW36100250

Results



Phase 1

HC-FID
(grams)
0.071

CO
(grams)
0.795

NOx
(grams)
0.015

CO2
(grams)
2180.9

CH4
(grams)
0.046

NMHC
(grams)
0.025

Meth Response
1.143

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.14			
Avg Cell Temp (degF)	75.04			
Dew Point (degF)	49.09			
Specific Humidity (grains/lbm)	53.14			
NOx Corr Factor	0.9068			
CO2 Dilution Factor	12.688			
CFV Vmix (scf @68F)	4144.50			
CVS Flow Rate Avg (scfm)	325.02			

Fan Placement: One Fan - Down - Front

Phase Time (secs)	765.10
Distance (miles)	10.226
Bag Analysis Time (secs)	105.2

MFR Test Results

for Procedure 3 HWFE

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0112	0.11	0	221	0	0.0073

Odometer	MPG	PM
3175 M	40.1	0.018

MFR Lab: Volkswagen AG, Dept EASZ/1

MPG is -3.66 % lower than EPA MPG

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By:

Date: 8-18-10

CERT
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-004

Vehicle ID: VW36100250

Test Information



Test Date: 8/18/2010

Key Start: 09:16:57

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 89 US06

Calculation Method: Gasoline

Pretest Remarks:

MFR Name VOLKSWAGEN

MFR Codes: 590 VWX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980041

Beginning Odometer: 003410.0 MI

Drive Schedule: us06warmup_2bagus06

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	5.469	157.201	0.245	0.808	3.131	
Ambient	2.490	0.000	0.038	0.043	1.975	
Net Concentration	3.133	157.201	0.209	0.768	1.277	1.674

Remarks:

Phase 2

Sample	5.576	238.253	0.144	1.052	3.356	
Ambient	2.492	0.000	0.044	0.043	1.976	
Net Concentration	3.284	238.253	0.103	1.013	1.539	1.525

Remarks:

Phase 3

Sample	
Ambient	
Net Concentration	

Remarks:

Phase 4

Sample	
Ambient	
Net Concentration	

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.063	6.387	0.013	490.7	0.030	0.034 / 0.035	17.750
Phase 2	0.029	4.242	0.003	283.3	0.016	0.013 / 0.014	30.652
Composite	0.03652	4.71769	0.00494	329.293	0.01881	(NMOG=1.04xNMHC) 0.0179 / 0.0187	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #: D329 - FWD
Phase 1	17.73		Inertia: 3250
Phase 2	30.62		EPA Set Co A: 5.22
			EPA Set Co B: 0.379
			EPA Set Co C: 0.01389
Composite	26.39		

Emissions Bench: Mexa 7200sle

v100414 - d329 EPAVDAEm100818085336

Page 1 of 2

Print Time 18-Aug-2010 09:45

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-004

Vehicle ID: VW36100250

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.112	11.321	0.022	869.7	0.053	0.060	1.143
Phase 2	0.180	26.387	0.017	1762.3	0.098	0.084	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.14	29.14		
Avg Cell Temp (degF)	74.48	75.20		
Dew Point (degF)	49.09	49.20		
Specific Humidity (grains/lbm)	53.14	53.37		
NOx Corr Factor	0.9068	0.9077		
CO2 Dilution Factor	16.249	12.447		
CFV Vmix (scf @68F)	2184.30	3359.11		

CVS Flow Rate Avg (scfm) 553.69 552.18

Fan Placement: US06 Only - One Large Fan - Down - Front

Phase Time (secs)	130.01	364.99	106.70
Distance (miles)	1.772	6.220	
Bag Analysis Time (secs)	110.2	321.8	

MFR Test Results

for Procedure 90 US06

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0297	2.24	0.0067	296	0	0.0208

Odometer
3305 M

MPG
29.7

MFR Lab: Volkswagen AG, Dept EASZ/1

MPG is 12.53 % higher than EPA MPG

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

Road load ABC, zero gpm 1/5, Tail Pipe BP OK DV 8-18-10
I have validated the data in accordance with the requirements of TP 730

Validated By: *[Signature]*

Date: *8-18-10*

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 8/19/2010 4:36:38 PM
Subject: VW Group: Retest Request for Volkswagen Test Vehicle VW36100250 cfg. 0

Hello Jim,

Volkswagen requests a retest for both the HWFET and US06 for test vehicle VW36100250 cfg. 0.

Volkswagen has accepted the test results for the FTP for that vehicle configuration.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Stuart.Johnson@vw.com;sebastian.berenz@vw.com;dennis.reineke@vw.com[];
ebastian.berenz@vw.com;dennis.reineke@vw.com[]; ennis.reineke@vw.com[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 8/19/2010 5:24:00 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hello.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0299 (2008 VW/Passat) - Ex. 6, 0930 vehicle pick up on 8/24/10
(Tuesday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 8/19/2010 9:36:52 PM
Subject: Re: VW Group: Retest Request for Volkswagen Test Vehicle VW36100250 cfg. 0

done

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/19/2010 12:36 PM
Subject: VW Group: Retest Request for Volkswagen Test Vehicle VW36100250 cfg. 0

Hello Jim,

Volkswagen requests a retest for both the HWFET and US06 for test vehicle VW36100250 cfg. 0.

Volkswagen has accepted the test results for the FTP for that vehicle configuration.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA; Bernd Liebner/AA/USEPA/US@EPA[]; ernd Liebner/AA/USEPA/US@EPA[]
Cc: "Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Berenz, Sebastian"
Sent: Fri 8/20/2010 12:23:37 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form_N148RXX-0299 **Ex. 6** .xlsx
Fuel Drain Instructions.pdf

Hello Mrs. Sohacki,
Hello Bernd,

Attached you will find the required information for third car.

The instructions are the same like for the other two cars.

If you have any questions, please do not hesitate to call me.
We will be in Ann Arbor on Tuesday to check the car.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, August 19, 2010 1:24 PM
To: Johnson, Stuart; Berenz, Sebastian; Reineke, Dennis
Subject: In-use vehicles scheduled for next week

Hello.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0299 (2008 VW/Passat) - **Ex. 6** 0930 vehicle pick up on 8/24/10
(Tuesday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number: N148RXX-0299

Equivalent Test Weight: 3875.0 Pounds

Nominal Fuel Tank Capacity: 18.5 Gallons **40% Fill** 7.4 Gallons

Drive Axle: front Front, Rear or All wheel drive

Tire Pressure: 41 PSI

Mfr. Shift Schedule (if required) FTA FTP HWA HWY USA US06

Vehicle Target Road-Load Coefficients

A 35.07 Lb-force

B 0.507 Lb-force*mpg

C 0.014 Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A 17.09 Lb-force

B 0.101 Lb-force*mpg

C 0.014 Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

see attached document

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

see attached document

Fuel Draining Process:

see attached document

ABS Disabling Process:

see attached document

Fuel Switch Process (Flex Fuel only):

n.a.

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Sebastian Berenz VWGoA

Date: 8/20/2010

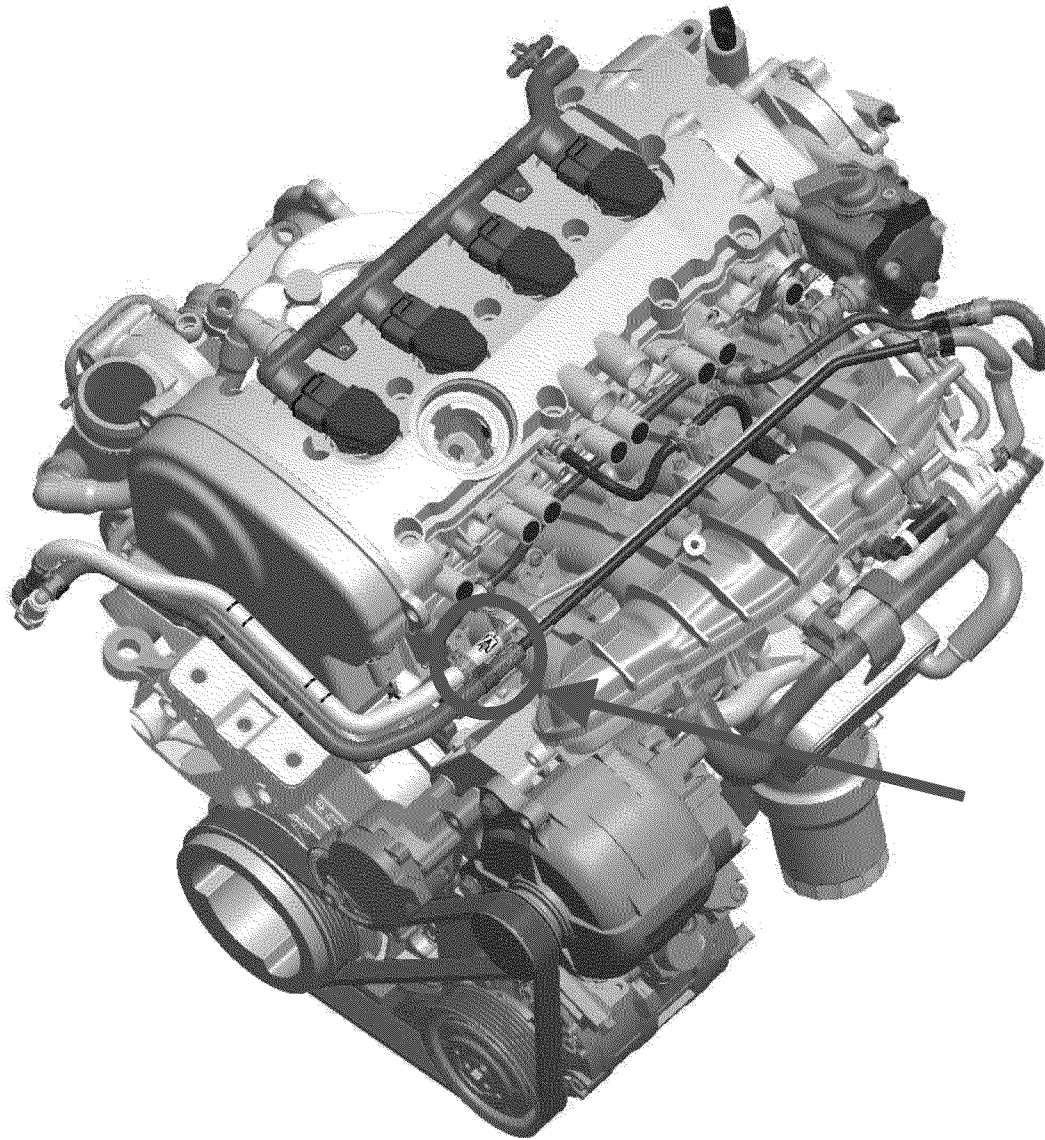
EG&G Representative:

Date:

EPA Representative:

Date:

Fuel Drain

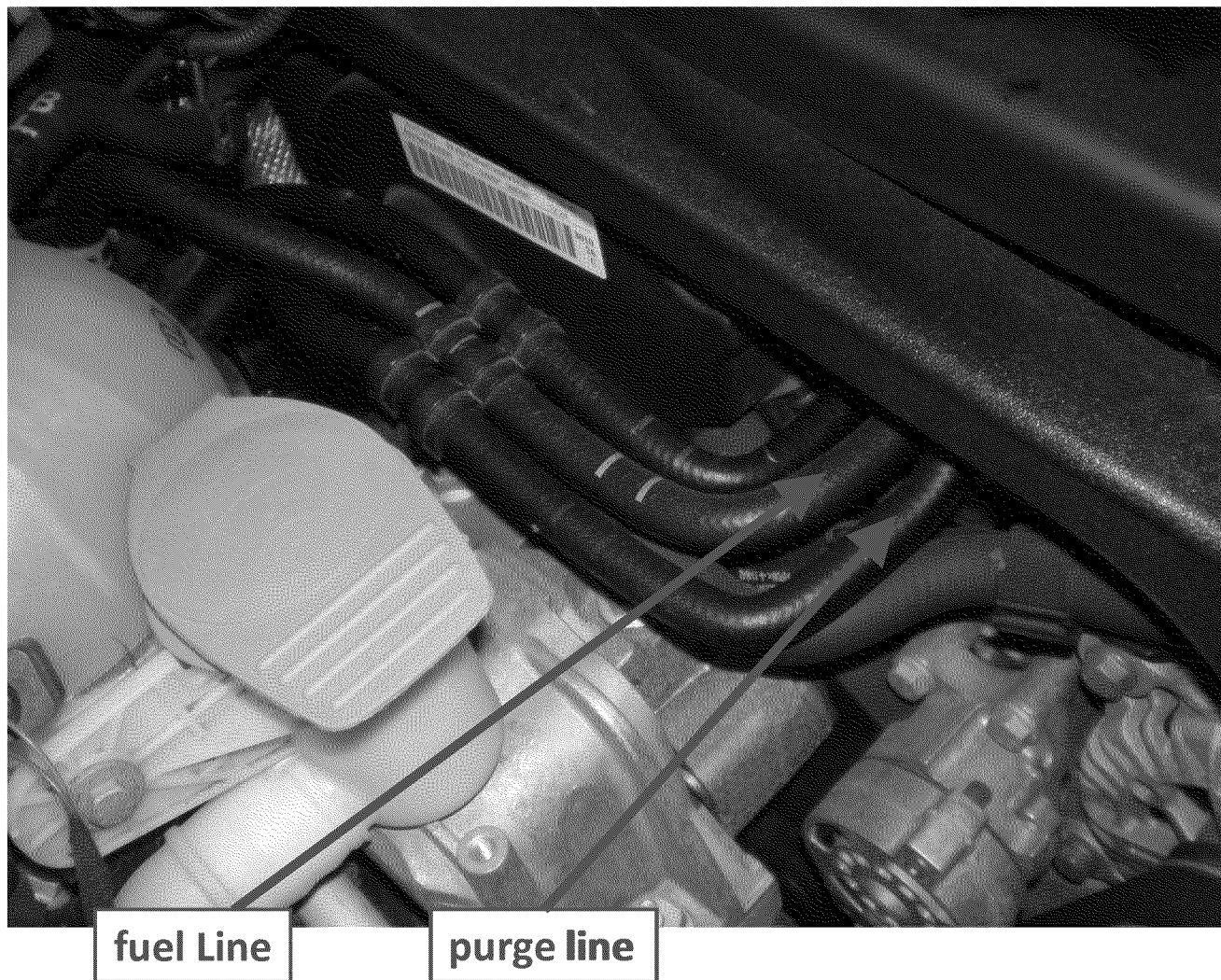


1. Remove Engine Cover

Access to Fuel Line and
Purge Line Connections

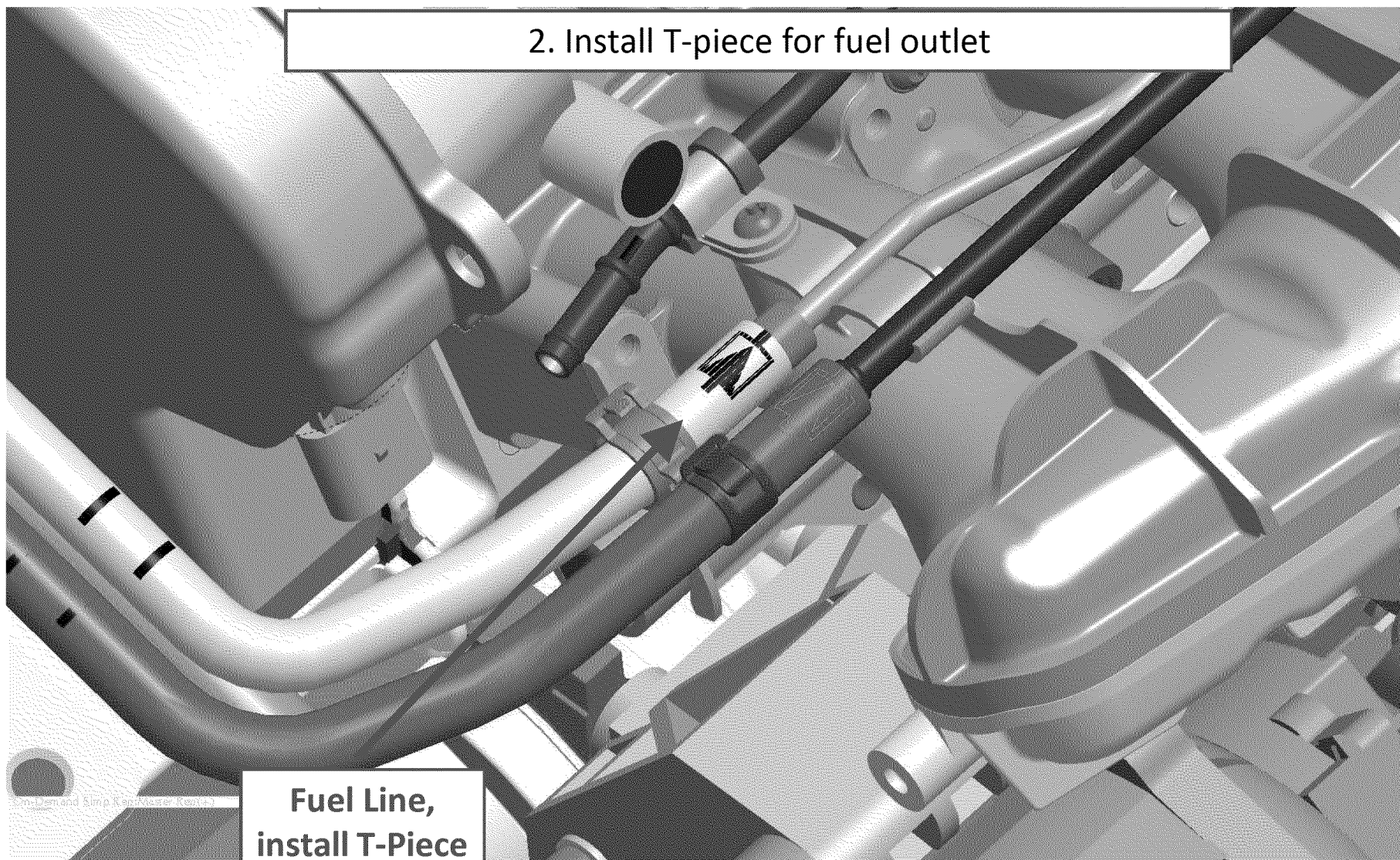
Fuel Drain

overview



Fuel Drain

2. Install T-piece for fuel outlet



Fuel Line,
install T-Piece

Fuel Drain, Canister Load Port

1. Remove Engine Cover
2. Install T-piece in fuel line and prepare to drain system
3. Activate 12v fuel pump until no more fuel flows.
(Should flow with key in on position without engine running. If not, use necessary means to supply fuel pump with 12v)

Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)

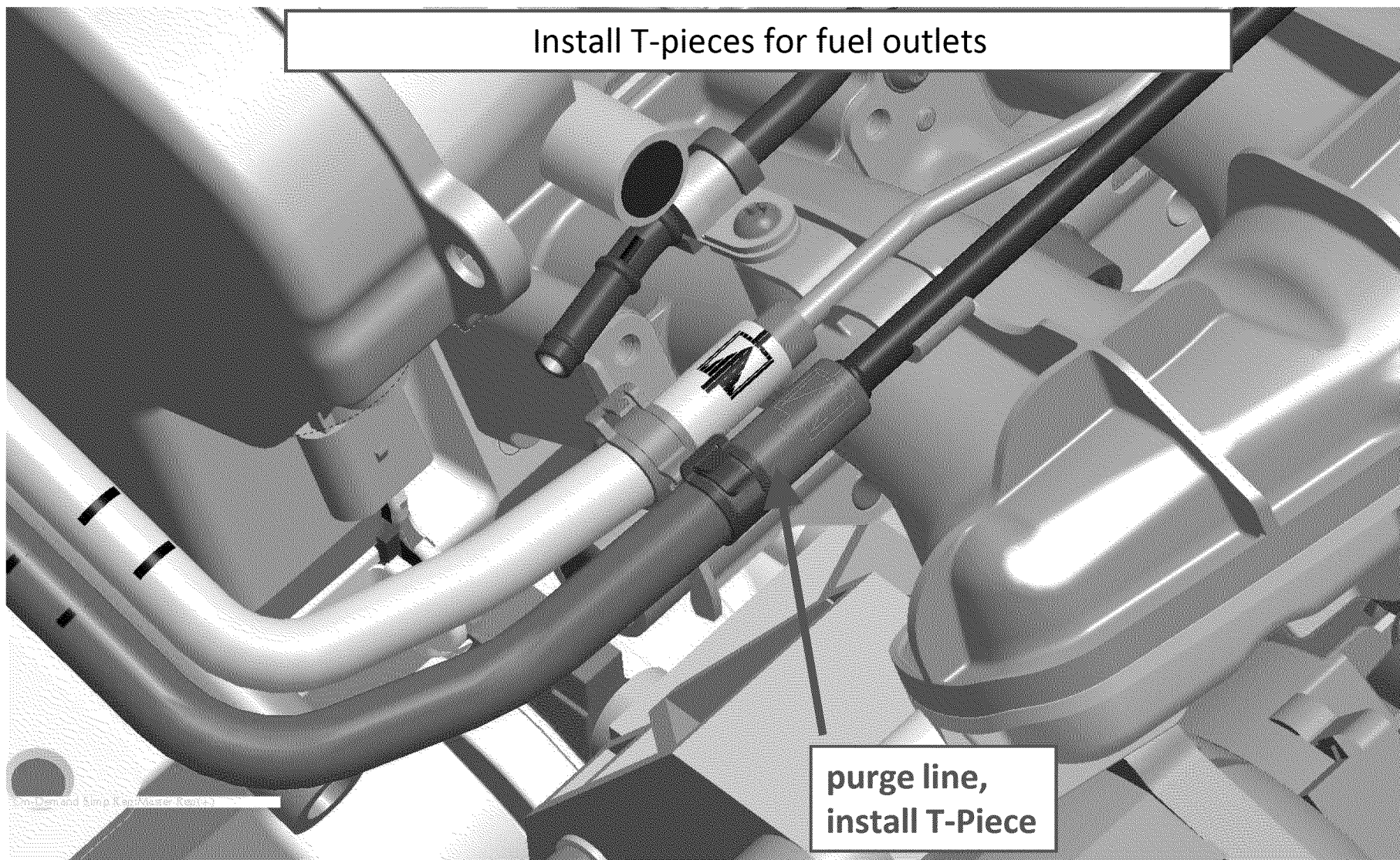


Carbon canister is placed in the wheel housing behind the wheel housing liner on the right side of the vehicle.

1. Remove wheel on the right in the back of the vehicle
2. Remove the wheel housing liner
3. Now you have access to the carbon canister

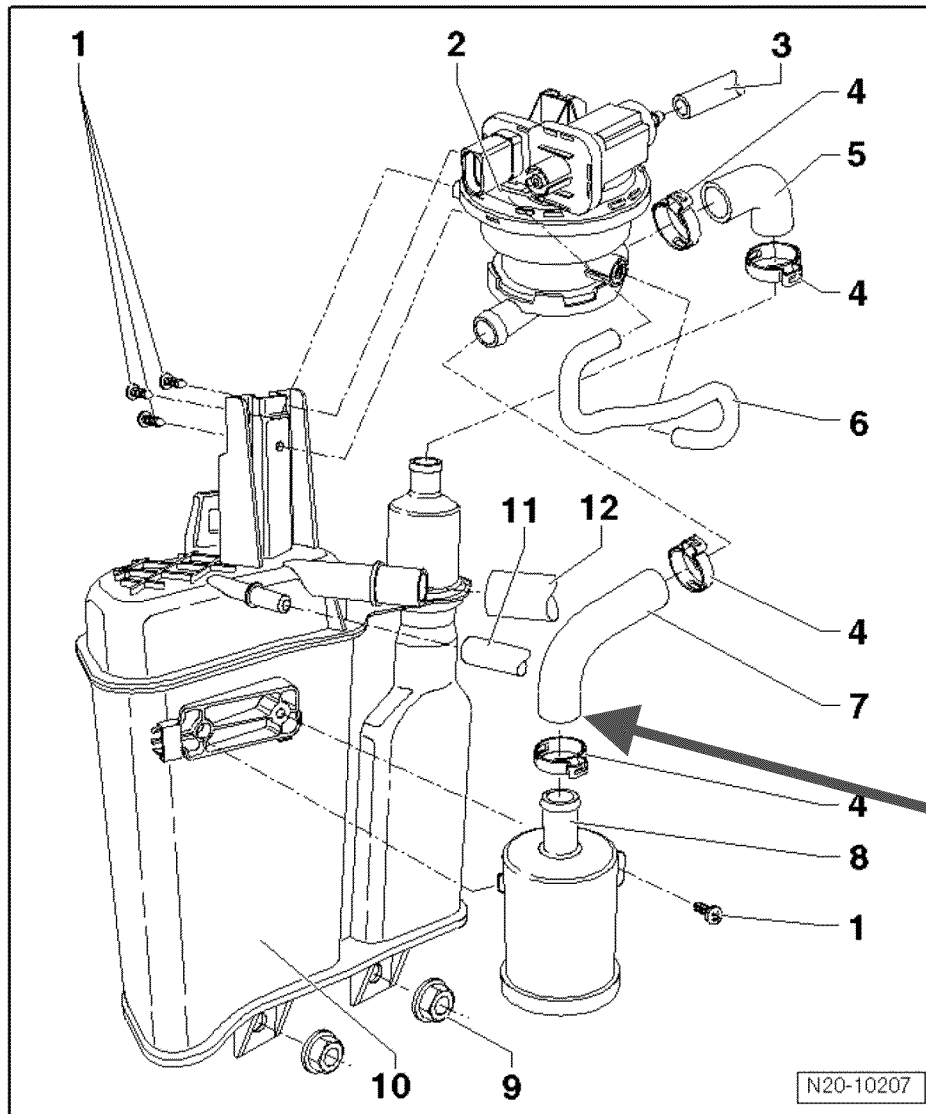
Canister Load Port

Install T-pieces for fuel outlets



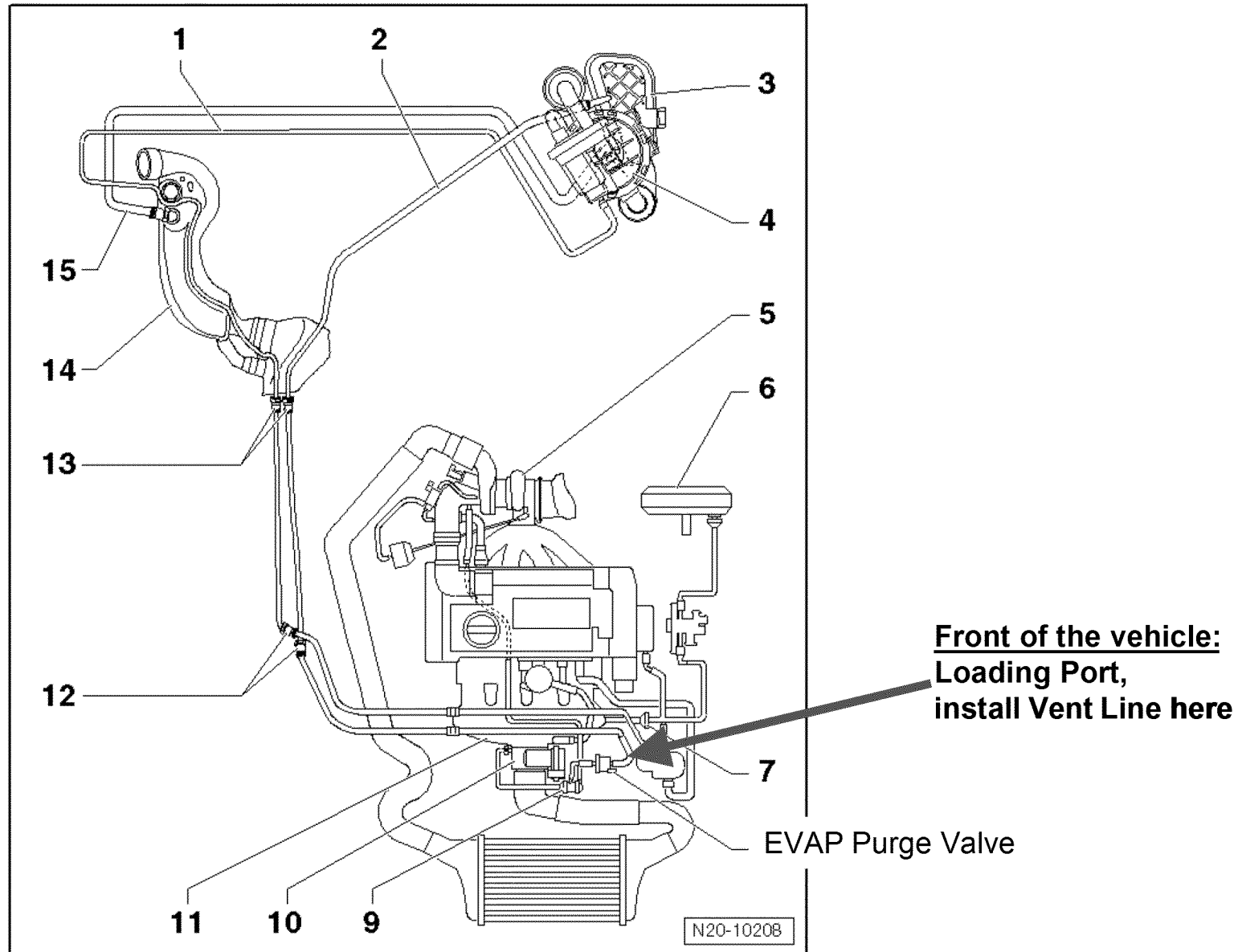
Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)



**Ventilation Port,
install Vent Line here**

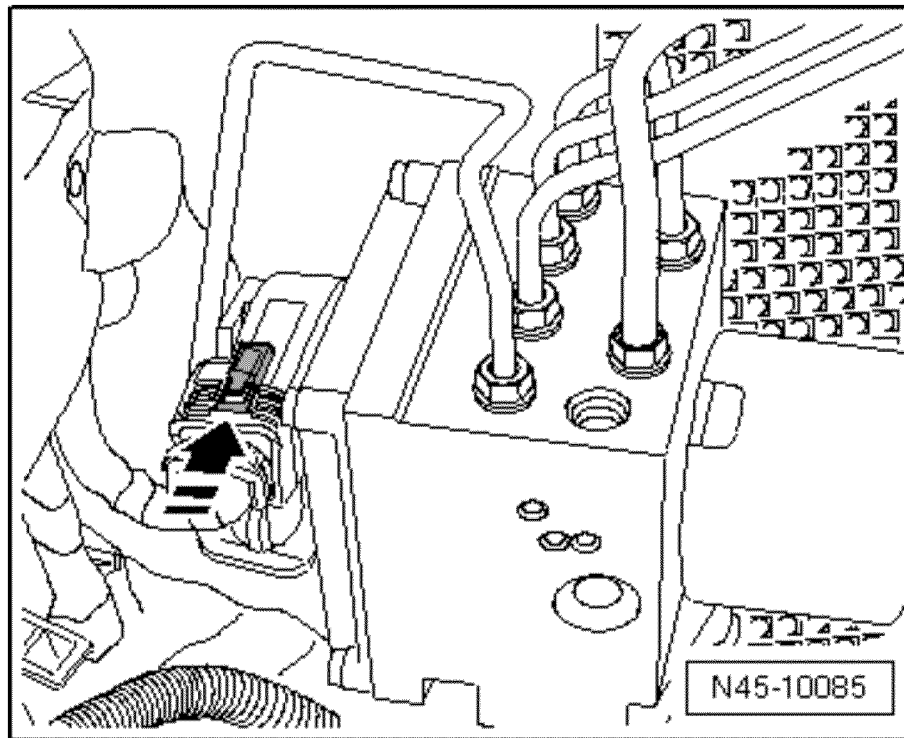
Structure of the Evap. System for Canister Loading/Purging



ABS disabling process

ESP SYSTEM DEACTIVATION:

- Remove the Plug on the ABS control unit (Engine Compartment)



To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 8/20/2010 2:55:46 PM
Subject: Re: VW Group: Bentley US06 Retest Request Recinded

I canceled the retest and informed the lab to go straight to the refueling.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/20/2010 10:38 AM
Subject: VW Group: Bentley US06 Retest Request Recinded

Hello Jim,

Bentley has decided to cancel the request for a retest of the US06 for test vehicle BY61021 cfg. 0 and accept the original test results.

Please call me if you have any questions.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 8/23/2010 5:57:11 PM
Subject: Re: Cert Request Submitted

Yep, on this afternoon's agenda .

Also saw the Bentley conditional.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/23/2010 01:40 PM
Subject: Cert Request Submitted

Hello Jim,

Just another "heads up" for a certificate request if you haven't already seen it. The certificate request for test group BVWXT03.6U76 was submitted on 19-Aug-10.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 8/23/2010 7:17:44 PM
Subject: VW Group: Letter to Allow Porsche to Use VW Test Results
CBI_BVWX_CORRES_LETTER01_R00.PDF

Hello Jim,

The attached letter has been submitted through the Verify System.

The letter grants permission for Porsche to use VW test results from the MY 2011 VW Touareg Hybrid in test group BVWXT03.0HEV for the emissions certification of the Porsche Cayenne Hybrid.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

VOLKSWAGEN

GROUP OF AMERICA

Mr. Jim Snyder
Compliance and Innovative Strategies Division
Office of Mobile Sources
U. S. Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, MI 48105

Leonard W. Kata Name
Manager – Emis. Cert. Title
EEO Department
248-754-4204 Phone
248-754-4207 Fax
leonard.kata@vw.com E-Mail

August 23, 2010 Date

Subject: Carry Across of MY 2011 Volkswagen Emission Test Data to Porsche for
Certification of Cayenne Hybrid

Dear Mr. Snyder,

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

The model year 2011 Volkswagen Touareg Hybrid and Porsche Cayenne Hybrid were developed together and share the same test vehicle. Porsche has permission from Volkswagen AG to carry across the Volkswagen manufacturer emissions tests and EPA confirmatory tests from the Touareg Hybrid for emissions certification of the Cayenne Hybrid.

Sincerely,



Leonard W. Kata
Volkswagen Group of America, Inc.

Engineering and Environmental Office

Enclosure(s)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: CN=Bernd Liebner/OU=AA/O=USEPA/C=US@EPA;"Johnson, Stuart" [Stuart.Johnson@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 8/24/2010 12:59:46 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form_N148RXX-0299 [Ex. 6].xlsx
Fuel Drain Instructions.pdf

Hi, Sebastian.

I have a question from the lab. The tire pressure that is listed on the door jam is 33 lbs. That differs from the pressure indicated on the attached form of 41 lbs. Which is the preferred tire pressure?

Thanks in advance for your response.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA, Bernd Liebner/AA/USEPA/US@EPA
Cc: "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/20/2010 08:23 AM
Subject: RE: In-use vehicles scheduled for next week

Hello Mrs. Sohacki,
Hello Bernd,

Attached you will find the required information for third car.

The instructions are the same like for the other two cars.

If you have any questions, please do not hesitate to call me.
We will be in Ann Arbor on Tuesday to check the car.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211

Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, August 19, 2010 1:24 PM
To: Johnson, Stuart; Berenz, Sebastian; Reineke, Dennis
Subject: In-use vehicles scheduled for next week

Hello.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0299 (2008 VW/Passat) - Ex. 6 D930 vehicle pick up on 8/24/10 (Tuesday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-

04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number: N148RXX-0299

Equivalent Test Weight: 3875.0 Pounds

Nominal Fuel Tank Capacity: 18.5 Gallons **40% Fill** 7.4 Gallons

Drive Axle: front Front, Rear or All wheel drive

Tire Pressure: 41 PSI

Mfr. Shift Schedule (if required) FTA FTP HWA HWY USA US06

Vehicle Target Road-Load Coefficients

A 35.07 Lb-force

B 0.507 Lb-force*mpg

C 0.014 Lb-force*mpg²

Vehicle Set Road-Load Coefficients

A 17.09 Lb-force

B 0.101 Lb-force*mpg

C 0.014 Lb-force*mpg²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

see attached document

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

see attached document

Fuel Draining Process:

see attached document

ABS Disabling Process:

see attached document

Fuel Switch Process (Flex Fuel only):

n.a.

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Sebastian Berenz VWGoA

Date: 8/20/2010

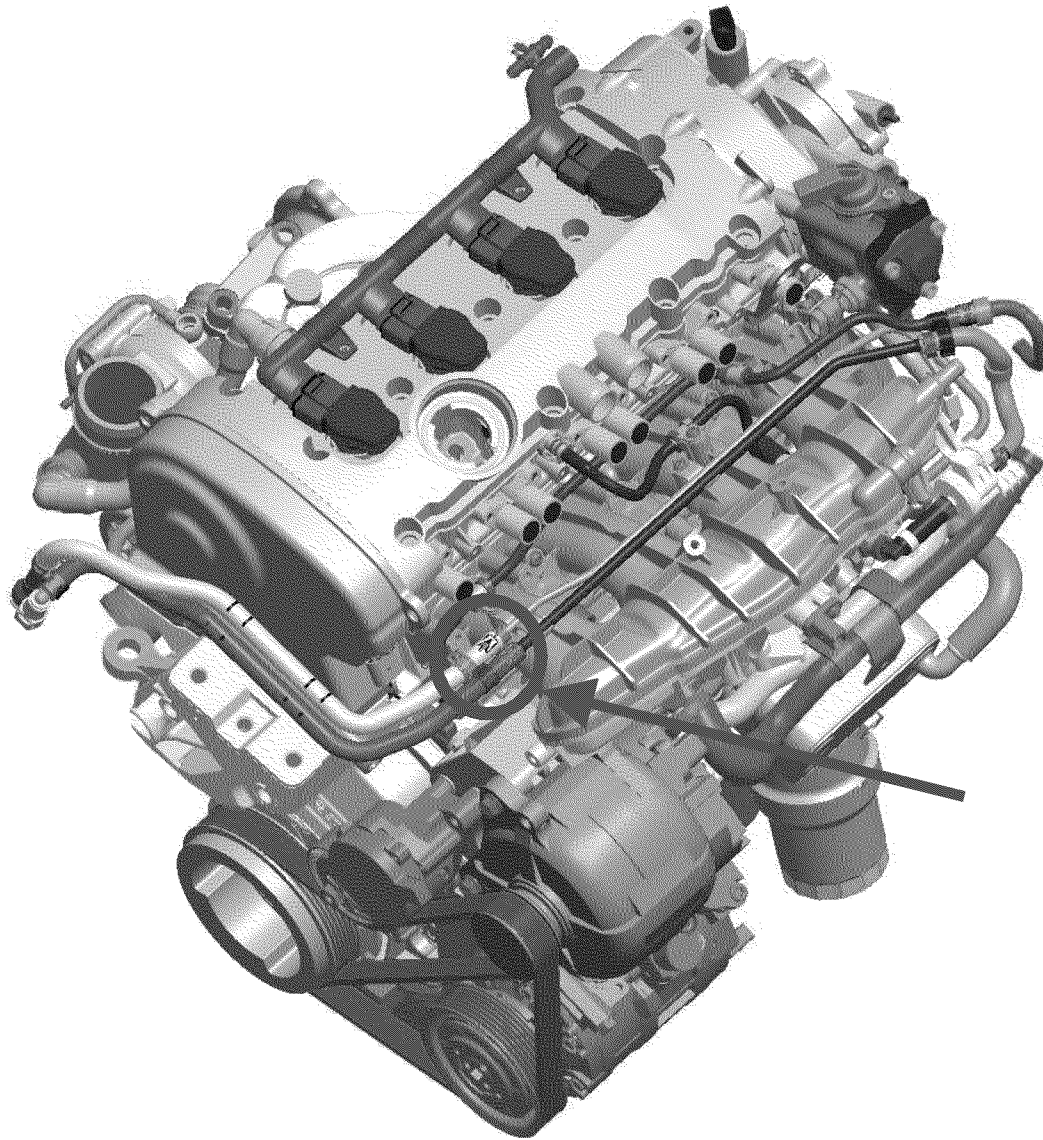
EG&G Representative:

Date:

EPA Representative:

Date:

Fuel Drain

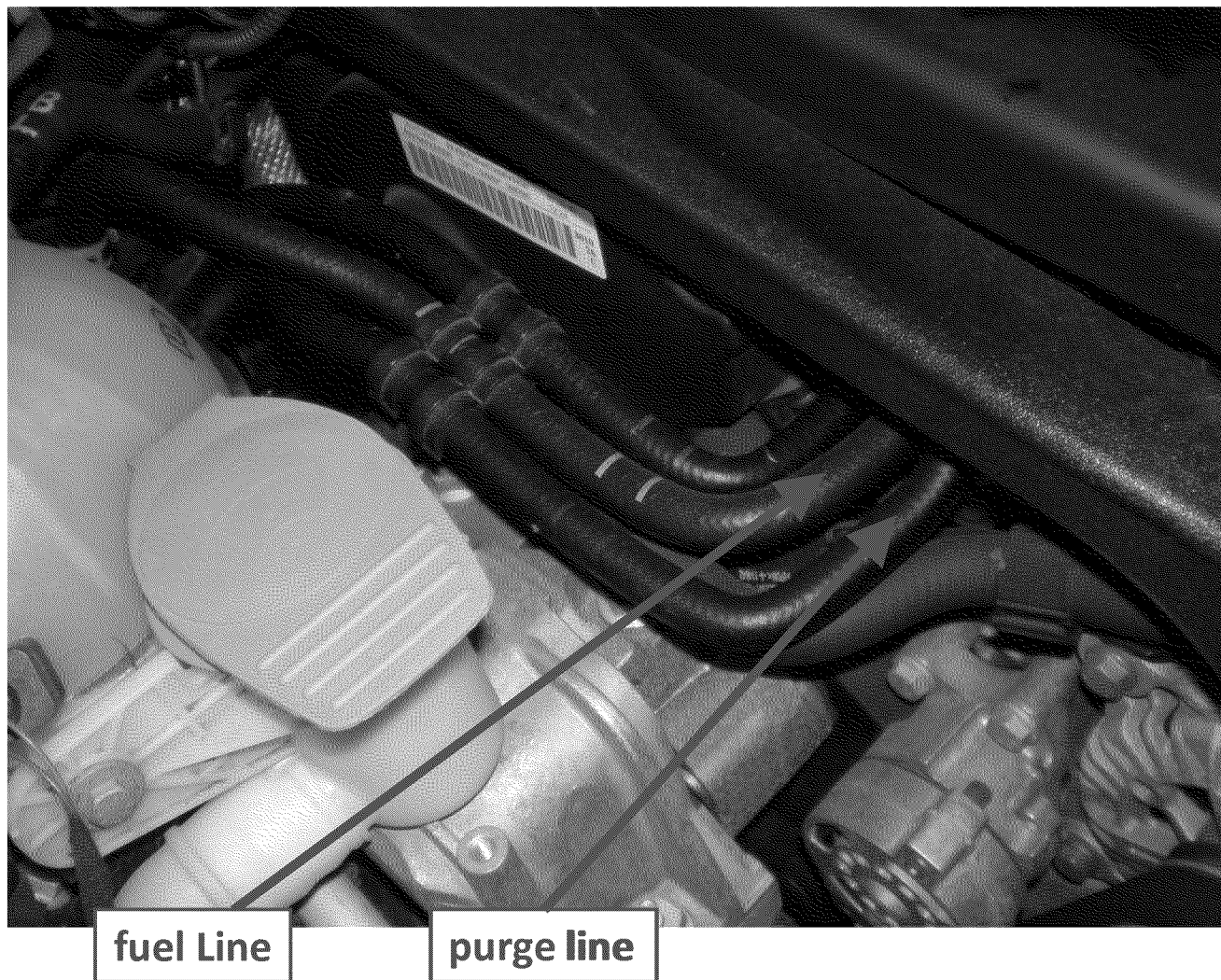


1. Remove Engine Cover

Access to Fuel Line and
Purge Line Connections

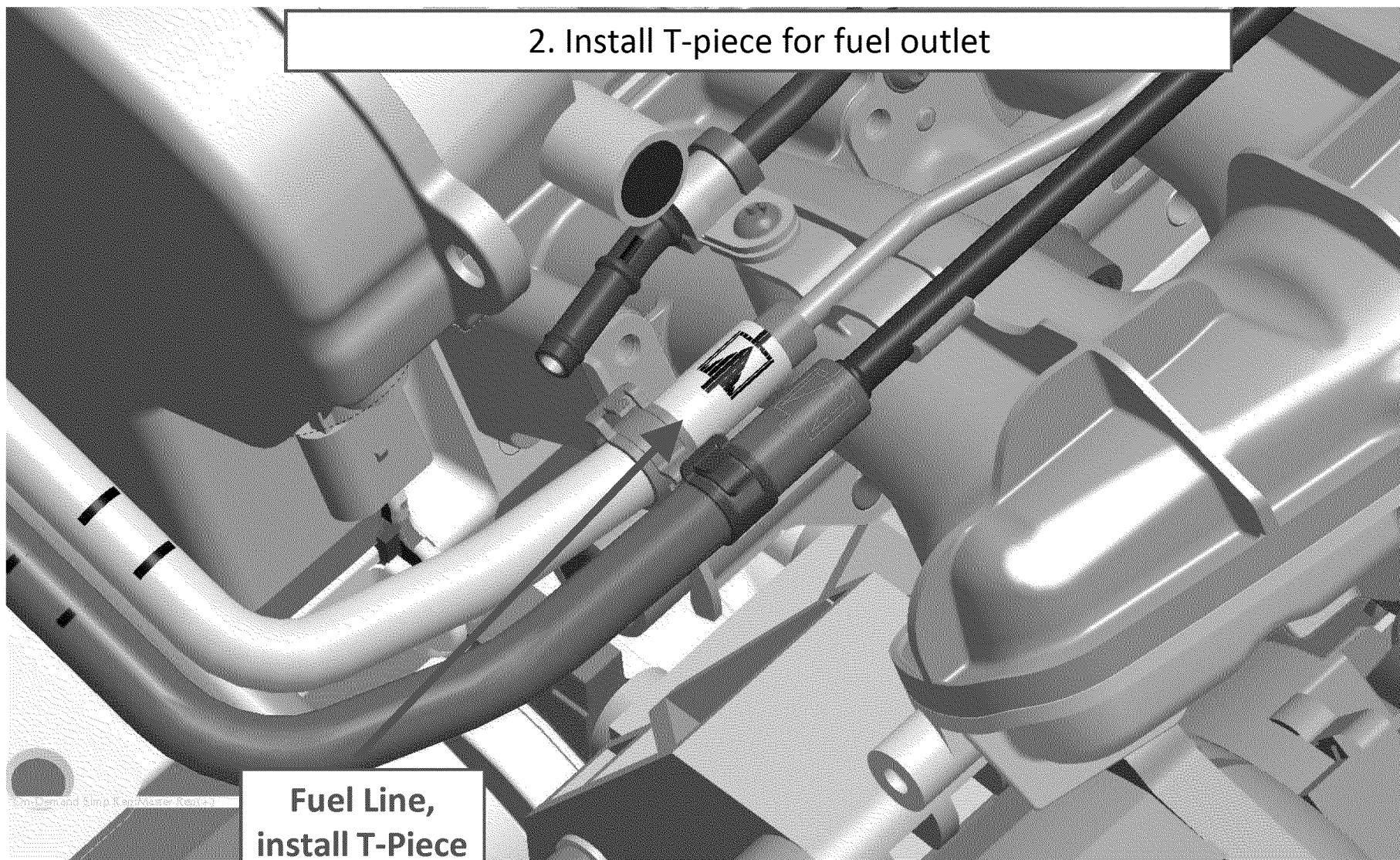
Fuel Drain

overview



Fuel Drain

2. Install T-piece for fuel outlet



Fuel Line,
install T-Piece

Fuel Drain, Canister Load Port

1. Remove Engine Cover
2. Install T-piece in fuel line and prepare to drain system
3. Activate 12v fuel pump until no more fuel flows.
(Should flow with key in on position without engine running. If not, use necessary means to supply fuel pump with 12v)

Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)

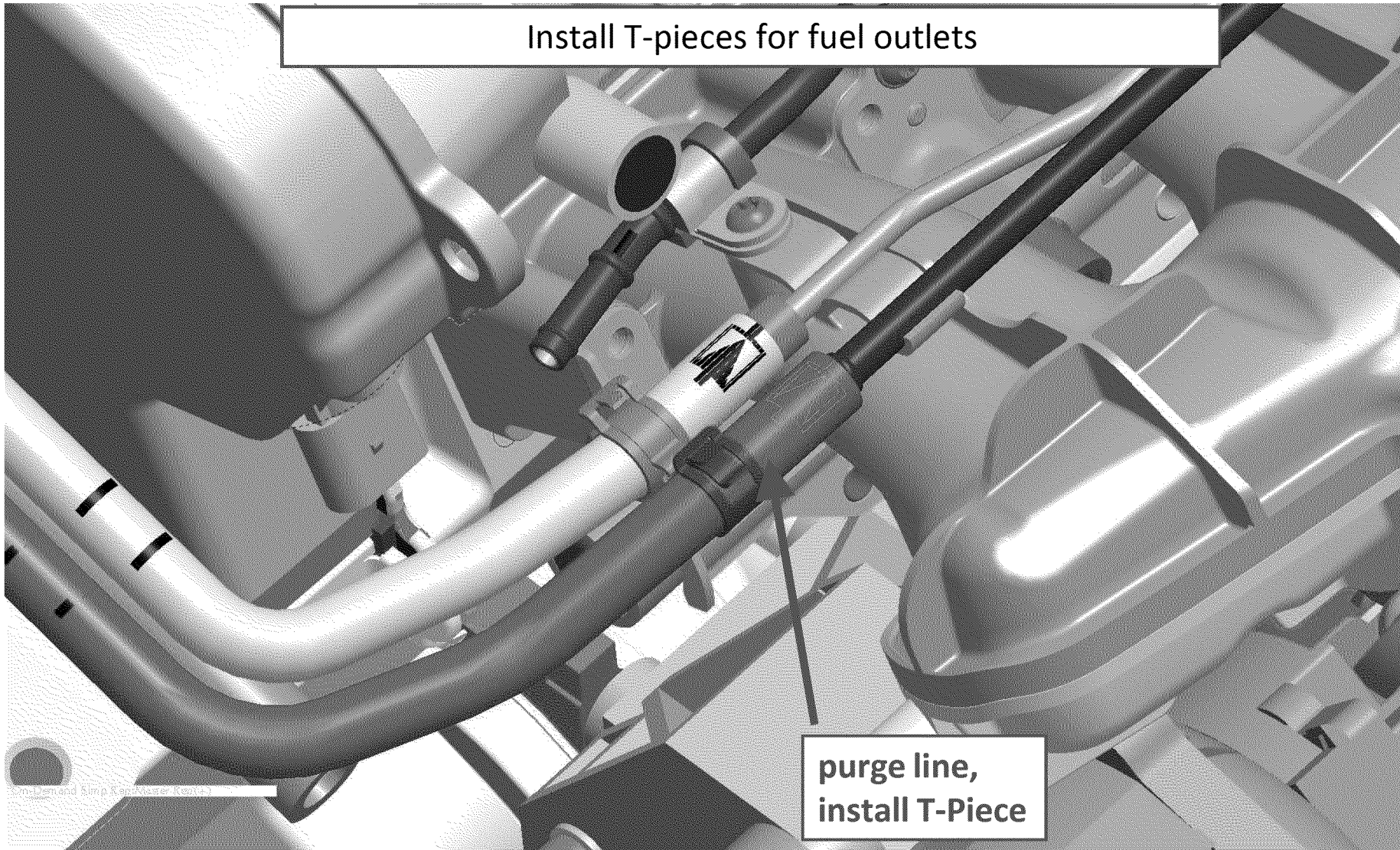


Carbon canister is placed in the wheel housing behind the wheel housing liner on the right side of the vehicle.

1. Remove wheel on the right in the back of the vehicle
2. Remove the wheel housing liner
3. Now you have access to the carbon canister

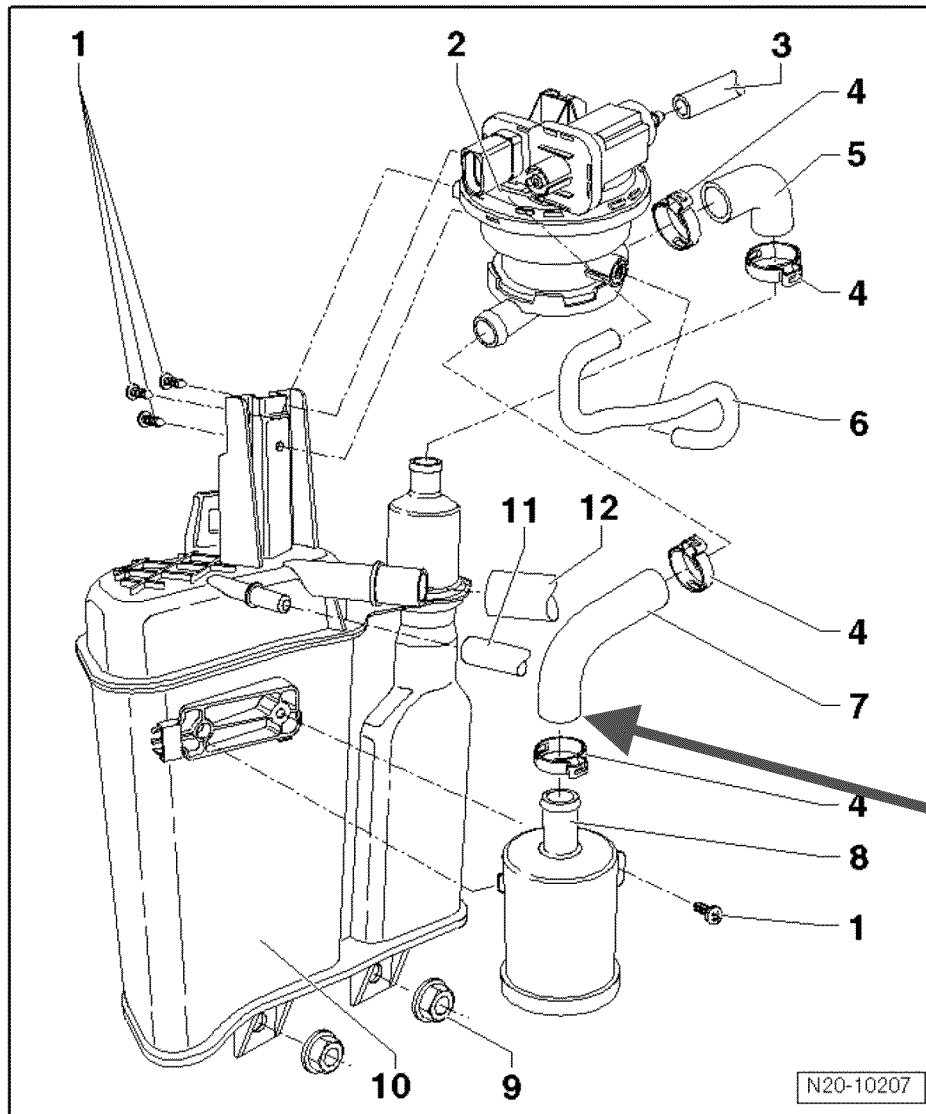
Canister Load Port

Install T-pieces for fuel outlets



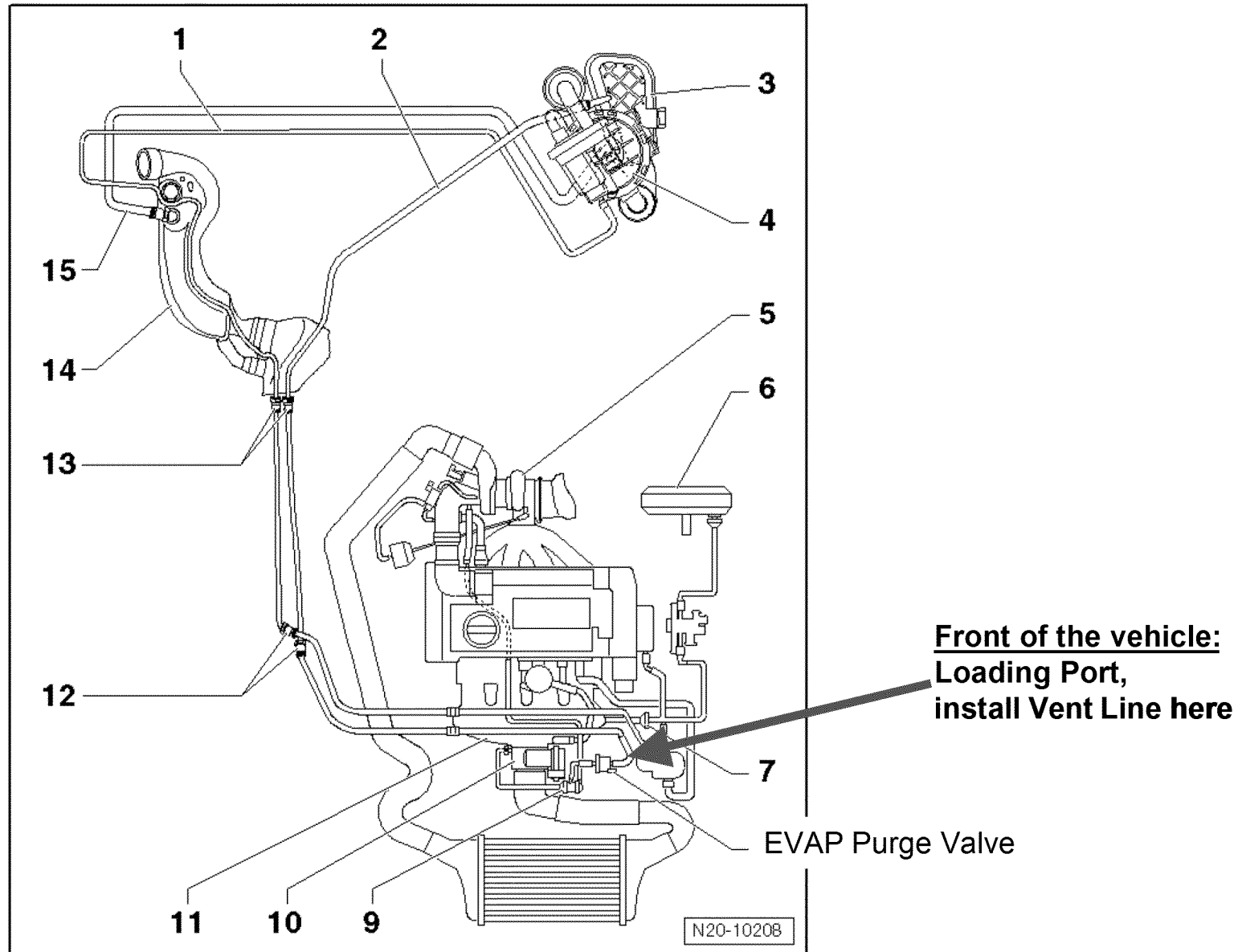
Carbon Canister Loading

Ventilation Port (rear right Wheel Housing)



**Ventilation Port,
install Vent Line here**

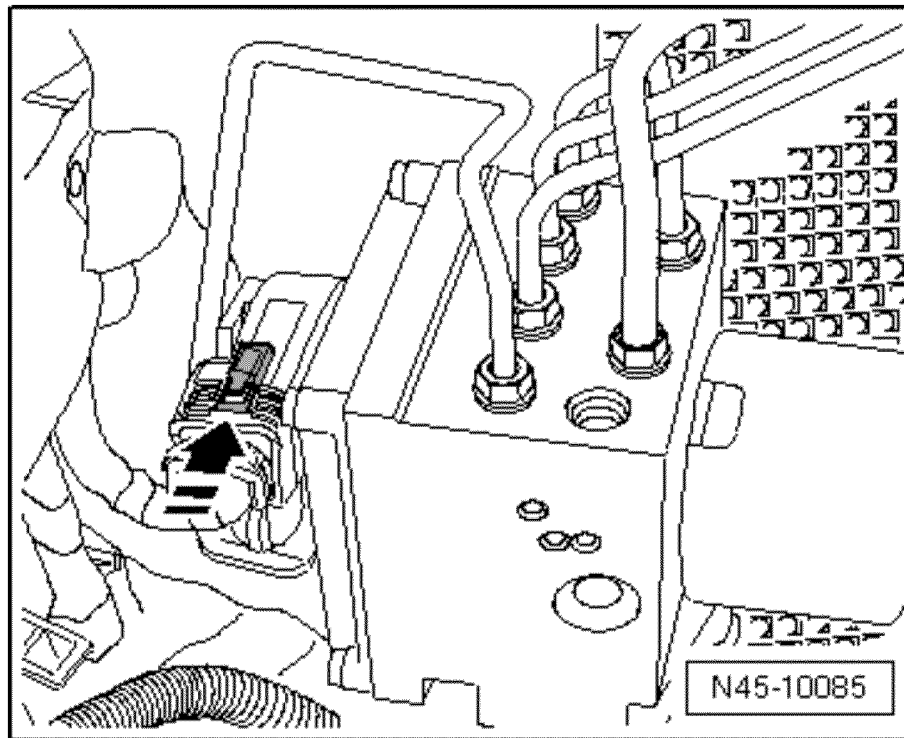
Structure of the Evap. System for Canister Loading/Purging



ABS disabling process

ESP SYSTEM DEACTIVATION:

- Remove the Plug on the ABS control unit (Engine Compartment)



To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 8/24/2010 5:13:48 PM
Subject: Re: VW Group: Letter to Allow Porsche to Use VW Test Results

Looks good.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/23/2010 03:17 PM
Subject: VW Group: Letter to Allow Porsche to Use VW Test Results

Hello Jim,

The attached letter has been submitted through the Verify System.
The letter grants permission for Porsche to use VW test results from the MY 2011 VW Touareg Hybrid in test group BVWXT03.0HEV for the emissions certification of the Porsche Cayenne Hybrid.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com
[attachment "CBI_BVWX_CORRES_LETTER01_R00.PDF" deleted by Jim Snyder/AA/USEPA/US]

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: Bernd Liebner/AA/USEPA/US@EPA;"Johnson, Stuart" [Stuart.Johnson@vw.com];
Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Berenz, Sebastian"
Sent: Tue 8/24/2010 6:30:24 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Mrs Sohacki,

The right tire pressure is 33lbs.
I'm sorry for that incorrect data.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, August 24, 2010 9:00 AM
To: Berenz, Sebastian
Cc: Liebner.Bernd@epamail.epa.gov; Johnson, Stuart
Subject: RE: In-use vehicles scheduled for next week

Hi, Sebastian.

I have a question from the lab. The tire pressure that is listed on the door jam is 33 lbs. That differs from the pressure indicated on the attached form of 41 lbs. Which is the preferred tire pressure?

Thanks in advance for your response.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA, Bernd Liebner/AA/USEPA/US@EPA
Cc: "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/20/2010 08:23 AM
Subject: RE: In-use vehicles scheduled for next week

Hello Mrs. Sohacki,
Hello Bernd,

Attached you will find the required information for third car.

The instructions are the same like for the other two cars.

If you have any questions, please do not hesitate to call me.
We will be in Ann Arbor on Tuesday to check the car.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, August 19, 2010 1:24 PM
To: Johnson, Stuart; Berenz, Sebastian; Reineke, Dennis
Subject: In-use vehicles scheduled for next week

Hello.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0299 (2008 VW/Passat) - **Ex. 6** 0930 vehicle pick up on 8/24/10 (Tuesday)

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls) (See attached file: In-Use Parameters Form_N148RXX-0299-**Ex. 6**.xlsx)(See attached file: Fuel Drain Instructions.pdf)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 8/24/2010 6:48:30 PM
Subject: RE: In-use vehicles scheduled for next week

Thank you, Sebastian.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Cc: Bernd Liebner/AA/USEPA/US@EPA, "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/24/2010 02:30 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Mrs Sohacki,

The right tire pressure is 33lbs.
I'm sorry for that incorrect data.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
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E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, August 24, 2010 9:00 AM

To: Berenz, Sebastian
Cc: Liebner.Bernd@epamail.epa.gov; Johnson, Stuart
Subject: RE: In-use vehicles scheduled for next week

Hi, Sebastian.

I have a question from the lab. The tire pressure that is listed on the door jam is 33 lbs. That differs from the pressure indicated on the attached form of 41 lbs. Which is the preferred tire pressure?

Thanks in advance for your response.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA, Bernd Liebner/AA/USEPA/US@EPA
Cc: "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/20/2010 08:23 AM
Subject: RE: In-use vehicles scheduled for next week

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Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
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E-Mail: sebastian.berenz@vw.com

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P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, August 19, 2010 1:24 PM

To: Johnson, Stuart; Berenz, Sebastian; Reineke, Dennis

Subject: In-use vehicles scheduled for next week

Hello.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0299 (2008 VW/Passat) Ex. 6 D930 vehicle pick up on 8/24/10 (Tuesday)

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

may have*
*disabling traction control, stability control and any load leveling the vehicle

preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki

Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls) (See attached file: In-Use Parameters Form_N148RXX-0299
Ex. 6 .xlsx)(See attached file: Fuel Drain Instructions.pdf)

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/25/2010 12:26:47 PM
Subject: Fw: VW416 80218 : 2nd test results
VW416 80218_8-24-10.pdf

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov
----- Forwarded by Jim Snyder/AA/USEPA/US on 08/25/2010 08:26 AM -----

From: Vincent Mazaitis/AA/USEPA/US
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/25/2010 07:07 AM
Subject: VW416 80218

Jim,

Please find enclosed the Laboratory re-test results for the subject vehicle.

Thanks,

Vince Mazaitis

C ERT

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-009

Vehicle ID: VW416 80218

Test Information



Test Date: 8/24/2010

MFR Name: AUDI

Key Start / Hot Soak: 10:36:56 / 09:39

MFR Codes: 640

ADX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: MANUAL

Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa

Shift Schedule: A06400035

Calculation Method: Gasoline

Beginning Odometer: 004558.0 MI

Pretest Remarks:

Drive Schedule: ftp3bag

Soak Period: 20.0 hours

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	19.686	99.822	1.436	1.386	3.159	
Ambient	8.005	0.350	0.002	0.044	2.017	
Net Concentration	12.516	99.509	1.434	1.346	1.352	11.068

Remarks:

Phase 2

Sample	4.616	22.700	0.104	0.962	1.898	
Ambient	4.801	0.347	0.000	0.043	1.983	
Net Concentration	0.160	22.379	0.104	0.922	0.058	0.098

Remarks:

Phase 3

Sample	3.294	23.324	0.619	1.260	2.089	
Ambient	3.154	0.365	0.006	0.043	1.950	
Net Concentration	0.437	22.993	0.614	1.222	0.323	0.092

Remarks:

Phase 4

Sample						
Ambient						
Net Concentration						

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.117	1.874	0.040	398.4	0.015	0.103 / 0.107	22.130
Phase 2	0.002	0.672	0.005	435.0	0.001	0.001 / 0.002	20.388
Phase 3	0.004	0.431	0.017	359.7	0.003	0.001 / 0.001	24.671
Weighted	0.02655	0.85499	0.01523	406.743	0.00449	(NMOG=1.04xNMHC) 0.0224 / 0.0233	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #:
Phase 1	22.11		D002
Phase 2	20.37		Inertia: 3875
Phase 3	24.65		EPA Set Co A: 15.56
			EPA Set Co B: -0.1295
			EPA Set Co C: 0.02613
Weighted	21.75		Emissions Bench: D002

v100414 - d002 EPAVDAEm100824102110

Page 1 of 2

Print Time 24-Aug-2010 11:39

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-009

Vehicle ID: VW416 80218

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.421	6.757	0.143	1436.7	0.053	0.372	1.071
Phase 2	0.009	2.603	0.018	1684.9	0.004	0.006	
Phase 3	0.015	1.554	0.061	1297.3	0.012	0.003	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.14	29.14	29.14	
Avg Cell Temp (degF)	75.27	75.30	75.40	
Dew Point (degF)	47.22	47.48	46.95	
Specific Humidity (grains/lbm)	49.49	50.00	48.99	
NOx Corr Factor	0.8929	0.8948	0.8911	
CO2 Dilution Factor	9.588	13.894	10.609	
CFV Vmix (scf @68F)	2059.68	3528.02	2049.83	
CVS Flow Rate Avg (scfm)	244.67	243.37	243.45	
Fan Placement:	One Fan - Down - Front			
Phase Time (secs)	505.10	869.80	505.20	
Distance (miles)	3.606	3.873	3.607	
Bag Analysis Time (secs)	74.9	74.0	74.0	

MFR Test Results

for Procedure 21 Federal fuel 2-day exhaust (w/can load)

MFR Number 1E+07	HC 0.0202	CO 0.49	NOx 0.02	CO2 378	NMOG 0	NonMeth HC 0.015
---------------------	--------------	------------	-------------	------------	-----------	---------------------

Odometer
4239 M

MPG
23.4

MFR Lab: Volkswagen AG, Dept EASZ/1

MPG is 7.60 % higher than EPA MPG

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

Rundwood ABC zero span 1/3, tail pipe BP OK 8-24-10
I have validated the data in accordance with the requirements of TP 730

Validated By: *[Signature]*

Date: 8-24-10

CERT
CVS

NVFEL Laboratory Test Data

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0242-010

Vehicle ID: VW416 80218

Test Information



Test Date: 8/24/2010
Key Start: 12:13:15
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: MANUAL
Shift Schedule: A06400036
Beginning Odometer: 004569.0 MI
Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	2.971	6.434	0.200	1.063	1.962	
Ambient	2.798	0.480	0.018	0.043	1.950	
Net Concentration	0.395	5.992	0.184	1.023	0.167	0.216

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol.MPG (mpg)
Phase 1	0.003	0.093	0.004	248.4	0.001	0.002 / 0.002	35.777

(NMOG=1.04xNMHC)

Fuel Economy

	Gasoline MPG	Coastdown secs:	Dyno Settings	Dyno #:
Phase 1	35.74	17.49		D002
		17.49		Inertia: 3875
		17.48		EPA Set Co A: 15.56
				EPA Set Co B: -0.1295
				EPA Set Co C: 0.02613
		17.49		Emissions Bench: D002

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data
Test Number: 2010-0242-010

Vehicle ID: VW416 80218

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.031	0.951	0.043	2551.5	0.015	0.017	1.071

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.13			
Avg Cell Temp (degF)	75.41			
Dew Point (degF)	47.29			
Specific Humidity (grains/lbm)	49.65			
NOx Corr Factor	0.8935			
CO2 Dilution Factor	12.595			
CFV Vmix (scf @68F)	4811.95			
CVS Flow Rate Avg (scfm)	377.41			

Fan Placement: One Fan - Down - Front
Phase Time (secs) 764.99
Distance (miles) 10.274
Bag Analysis Time (secs) 73.9

MFR Test Results

for Procedure 3 HWFE

<u>MFR Number</u>	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>NMOG</u>	<u>NonMeth HC</u>
1E+07	0.0081	0.22	0.021	246	0	0.0046

Odometer
4266 M

MPG
36

MPG is 0.72 % higher than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21
Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By: 62459 Date: 8-24-10

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 8/25/2010 7:56:28 PM
Subject: VW Group: Test Type Question
[image001.gif](#)
[image002.gif](#)

Hello Jim,

The tests listed for the Touareg Hybrid (T.G.: BVWXT03.0HEV) in Verify are 1 FTP, 1 HWFE and 2 US06 (I'm guessing one 2-Bag and one 1-Bag w/PM). See highlighted info below.

The FTP is listed as type 21 which is a standard Federal fuel 2-day exhaust (w/can load).

Is this correct or will it be a UDDS? Is this just a limitation of the Verify System - maybe it hasn't been coded to indicate a UDDS test yet?

Bob Hart

Vehicle selected for Test VW526710023, Supplemental Information needed - Message

From:
Verify Administrator

Subject:
Vehicle selected for Test VW526710023, Supplemental Information needed

Date:
Fri 8/13/2010 1:26 PM

Your recent submission has been selected by the EPA for Confirmatory Testing for the following vehicle:
Manufacturer: VWX Vehicle ID: VW526710023 Vehicle Configuration: 0 Please submit your supplemental information as soon as possible so that the EPA can schedule a test date. Below are the specific tests that will be run: 3 - HWFE 61 - Tier 2 Cert Gasoline 21 - Federal fuel 2-day exhaust (w/can load) 61 - Tier 2 Cert Gasoline 90 - US06 61 - Tier 2 Cert Gasoline 90 - US06 61 - Tier 2 Cert Gasoline

Manufacturer Code: VWX

Vehicle ID: VW526710023

Vehicle Configuration #: 0

Test Group Name: BVWXT03.0HEV

Transaction Identifier: _edc7f15d-c98b-40ac-9520-7f64fb8b3c88

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 8/25/2010 8:20:57 PM
Subject: EPA's Confirmatory Maintenance Form
N001c-002c TELEPHONE QUESTIONNAIRE.doc
N001 maintenance before FTP.doc

Hi, Sebastian.

Attached is the form that we use during maintenances for vehicles in a confirmatory class. There are a few items that I need you to provide. I've indicated those things in red. Please fill in the blanks and return the file to me. Please also let me know if you have any questions.

In case you are interested in seeing the telephone questionnaire, I've attached that as well.

Thanks,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

**TELEPHONE QUESTIONNAIRE
FOR CONFIRMATORY CLASS:**

VEHICLE CONTROL NUMBER _____ DATE _____

ADMINISTERED BY _____

OWNER'S NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____
(CALL NUMBER BELOW THAT IS MARKED WITH AN "X")

TELEPHONE (Home) / ____ / _____ (Business) / ____ / _____

BEST TIME TO CALL _____

"WE ARE AUTHORIZED BY FEDERAL LAW TO COLLECT THIS INFORMATION. WHILE YOU ARE NOT REQUIRED TO RESPOND, YOUR COOPERATION IS NEEDED TO MAKE THE RESULTS OF THIS INVESTIGATION VALID."

DATE OF CONTACT _____ TIME OF CONTACT _____

INDIVIDUAL CONTACTED _____

TO BE COMPLETED _____ DATE AND TIME OF COMPLETION _____

You have been selected from a list of vehicle owners living in the Ann Arbor / Detroit area to participate in a study of vehicle emissions being conducted by the U.S. Environmental Protection Agency.

EPA is authorized by law to conduct this study and to offer incentives to you for your cooperation should you decide to participate. Your participation in this program is strictly voluntary.

The accuracy of the information that you provide is important. The information that you provide will be used by EPA along with emission results for your car to determine whether the automobile manufacturer has complied with clean air standards established by Congress. The test results from your car will not be used by EPA to take action against you. Your cooperation will help EPA's efforts to control air pollution due to motor vehicle emissions.

Public reporting burden for this collection of information is estimated to vary from 1 to 60 minutes per response, with an average of 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Director, Regulatory Information Division, 2136, U.S. Environmental Protection Agency, 401 M St., S.W. Washington, DC. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

These are the conditions of the program:

We ask that you bring your vehicle into our testing facility where you will receive either a cash incentive for each day we keep your vehicle or a late model loaner car which will have a full tank of gas and unlimited mileage. This vehicle is yours to use without charge for the duration of the testing, which takes approximately three to four weeks. During this time, we will be performing a series of tests on your vehicle to measure vehicle emissions.

-at the time the vehicle is delivered to us for testing, you will be required to sign a form stating that the answers to the questions you will be asked are true and accurate to the best of your personal knowledge and belief.

We will provide you the following incentives for participating in our program:

-If your vehicle is accepted into the program, a full tank of gas and a cash incentive will be awarded. You will receive \$50 per day for each day your vehicle is at NVFEL, and the use of a fully-insured loan car; or \$75 per day for every day your vehicle is at NVFEL in lieu of a loan car. However, if your vehicle is rejected after you bring it to the lab, but before you leave, you will receive a \$20 payment.

The compensation will be based upon whole days, beginning with the day your car arrives. It will end one day after you are notified your vehicle is ready for return.

The maintenance performed on your vehicle will depend on program requirements. You will be given a list of any parts that are replaced.

Are you willing to participate? YES/ / NO/ /

If you are not, may we ask why not? _____

IF RESPONSE IS POSITIVE:

For the purpose of this study, I am going to ask you some questions about your vehicle's maintenance and usage history. You should answer these questions to the best of your knowledge and indicate when you are not sure of something.

FOR "MPF PERSONNEL" ONLY

SENTENCES IN CAPITAL LETTERS ARE INSTRUCTIONS TO THE CLERK
AND ARE NOT INTENDED TO BE READ TO THE OWNER.

- 1. a. What are the model year, transmission type, vehicle identification number and engine family of your vehicle? The engine family can be found on a Vehicle Emission Control Information decal located under the engine hood.**

The engine family should start with the letters 8 A D.

/ / Owner is unable to locate.

/ / Owner located. ENGINE FAMILY _____

/ / Engine family located when vehicle arrived at the Lab.

ENGINE FAMILY _____

ELIMINATE IF ENGINE FAMILY IS NOT 8AD XV03.1374

b. MODEL _____ VEHICLE ID NO. _____

MODEL YEAR _____

TRANSMISSION: AUTOMATIC / / AIR CONDITIONED: YES/ / NO/ /
MANUAL / / ODOMETER MILEAGE: _____

ELIMINATE IF MILEAGE IS UNKNOWN OR OVER 75,000 MILES.

VEHICLES WITH MILEAGE OVER 50,001 SHOULD BE ASSIGNED TO CLASS N002C

- c. Has the odometer ever not functioned properly?**

YES/ / NO/ /

If yes, approximately how long (months/miles) was it inoperable? _____

CONSULT EPA FOR ELIGIBILITY IF THE RESPONSE IS "YES"

- 2. a. When and where did you obtain your vehicle? When _____**
Where _____

- b. Was the vehicle utilized as a demonstrator prior to you purchase?**

YES/ / NO/ / DO NOT KNOW / /

IF THE ANSWER IS YES, ELIMINATE VEHICLE. CONSULT EPA IF DON'T KNOW

c. What was the mileage at the time of purchase or lease. _____

CONSULT EPA IF MILEAGE IS OVER 400.

d. Are you the original purchaser or lessee of the vehicle?

YES/ / NO/ /

IF OBTAINED NEW, GO TO NEXT NUMBERED QUESTION. IF OBTAINED USED FROM OWNER'S EMPLOYER OR IMMEDIATE FAMILY MEMBER, GO TO (e); OTHERWISE ELIMINATE.

e. Have you been the driver responsible for fueling, repairs and maintenance since the vehicle was new?

YES/ / NO/ /

IF NO, ELIMINATE.

3. Was the vehicle tested in a previous EPA or VW/AUDI emission program?
(REGULARLY REQUIRED STATE RUN EMISSIONS CHECKS ARE NOT INCLUDED)

YES/ / NO/ /

CONSULT EPA FOR ELIGIBILITY IF YES.

4. Has your vehicle ever been used as a taxi?

YES

NO

5. Has your vehicle ever been used as a commercial delivery vehicle?

6. Has your vehicle ever been used to race in competitive speed events?

7. Have you ever used your vehicle in severe dust conditions?

8. Have you ever used your vehicle to plow snow?

9. Has the fuel pipe restrictor been modified or removed from your vehicle?

ELIMINATE IF ANY POSITIVE RESPONSE TO QUESTIONS 4 THROUGH 9.
(FOR TRUCKS ELIMINATE IF ANY POSITIVE RESPONSE TO 6 THRU 9)

10. Has the vehicle been equipped to permit trailer towing?

YES/ / NO/ /

If yes; how and by whom? _____

11. Has the vehicle been used to pull trailers?

YES/ / NO/ /

ELIMINATE IF RESPONSE IS "YES"

12. a. Is your vehicle equipped with air conditioning?

YES/ / NO/ / IF NO, GO TO 13.

b. Was the air conditioning unit on your vehicle:

1) Factory installed? / /

2) Dealership installed? / /

3) Nondealership installed? / /

4) Do not know? / /

CONSULT EPA IF RESPONSE IS 2), 3), OR 4).

13. Have any of the following special devices been installed on your vehicle other than standard parts made by VW/AUDI?

a. exhaust headers _____

b. camshaft _____

c. ignition equipment _____

d. carburetor or fuel injection components _____

e. modifications to computerized engine control _____

f. other (describe)

g. THIS ITEM IS FOR TRUCKS ONLY

Cap. toolbox, bedliner or other structure or device mounted in the truck bed.

(Describe including the device weight) _____

REMIND THE OWNER TO REMOVE LOOSE ITEMS FROM ALL COMPARTMENTS IN THE

TRUCK BED BEFORE BRINGING IT IN.

CONSULT EPA IF THERE IS A POSITIVE RESPONSE FOR ANY OF THE ABOVE ITEMS.

14. a. How many times per year do you drive on unpaved roads? _____

b. What percent of your mileage do you estimate you drive on unpaved roads? _____

ELIMINATE IF OVER 5%. (DELETE THIS QUESTION FOR TRUCK CLASSES)

15. Have you ever used any fuel other than that recommended by the manufacturer in your vehicle? (ex. leaded, E85)

YES / / NO / /

If Yes, what have you used? _____

How often have you used it? _____

When was the last time you used it? _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

16. Have there been any problems with the catalytic converter?

YES/ / NO/ / DON'T KNOW / /

If yes, describe _____

CONSULT EPA IF YES OR DON'T KNOW.

17. Have any settings been misadjusted or have the emission control system components been altered, modified or disconnected?

YES/ / NO/ /

If yes, explain what, when, and where.

WHAT _____

WHEN _____

WHERE _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

18. a. Has your vehicle ever overheated?

- 1) Never
- 2) One Time
- 3) More than One Time

ELIMINATE IF VEHICLE HAS OVERHEATED MORE THAN ONCE. IF VEHICLE HAS OVERHEATED ONCE, OBTAIN RESPONSES TO b,c AND d, THEN CONSULT EPA.

b. How did you know the vehicle overheated?

- 1) Temperature Gauge or Light
- 2) Steam From Under the Hood
- 3) Other _____

c. How far was the vehicle driven in an overheated condition?

- 1) Less than a mile
- 2) 1-3 miles
- 3) Greater than 3 miles

CONSULT EPA IF 1 OR 2; ELIMINATE IF 3.

d. When and where did vehicle overheat and what did you do?

19. a. Has your vehicle ever been involved in an accident?

YES/ / NO/ /

IF YES COMPLETE QUESTIONS (b), (c), (d), and (e).

b. As a result of an accident has your vehicle ever had damage in any of the following areas?

Yes No

- | | | |
|---|-------|-------|
| 1) Engine..... | _____ | _____ |
| 2) Cooling System..... | _____ | _____ |
| 3) Carburetor or Fuel Injection System..... | _____ | _____ |
| 4) Exhaust System..... | _____ | _____ |
| 5) Fuel Tank..... | _____ | _____ |
| 6) Ignition System..... | _____ | _____ |
| 7) Emission Control System..... | _____ | _____ |
| 8) Other (Specify)..... | _____ | _____ |

c. If “yes” for any of 1 to 8 describe the damage and the circumstances of the accident.

IF THERE WAS DEFINITE DAMAGE TO ANY OF THESE COMPONENTS OR IF THE OWNER IS UNSURE WHETHER THE ABOVE COMPONENTS WERE DAMAGED, CONSULT EPA.

d. Has the damage been repaired?

YES/ / NO/ /

e. If yes; what, when, by whom and at what cost?

What _____

When _____

Who _____ Cost _____

20. a. Has your “Check Engine” light (Malfunction Indicator Light) ever been on during vehicle operation at any time other than start up?

YES/ / NO/ / IF YES, GO TO b and c.

b. Describe the circumstances of each occurrence: _____

c. How many miles was the vehicle driven with the light on before repairs were made? (If more than one instance, list for each.)

ELIMINATE IF DRIVEN MORE THAN 1,000 MILES IN ANY ONE INSTANCE.

d. What was done to repair the vehicle after the light came on?

(IF MORE THAN ONE INSTANCE, LIST FOR EACH.) _____

IF REPAIRS WERE MADE WITHIN 1,000 MILES, CONSULT EPA FOR ELIGIBILITY.

21. a. When were the oil and oil filter first changed after obtaining the vehicle?

Date _____ Mileage _____

CONTACT EPA IF MORE THAN 10,500 MILES OR 13 MONTHS

b. When were the oil and oil filter changed the second time after obtaining the vehicle?

Date _____ Mileage _____

CONTACT EPA IF THE INTERVAL IS MORE THEN 11,500 MILES AFTER THE FIRST TIME.

c. IF OWNER HAS RECORDS SHOWING DATES AND MILEAGE OF OIL AND FILTER CHANGES, OBTAIN THE FOLLOWING INFORMATION:

How many oil and oil filter changes have you had?

(IF FILTER CHANGE WAS PERFORMED, INDICATE BY CHECK MARK IN PROVIDED SPACE).

DATE _____ OIL CHANGE / / DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / / MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

d. IF OWNER DOES NOT HAVE SERVICE RECORDS SHOWING DATES AND MILEAGE OF OIL AND FILTER CHANGES, BUT CHANGES ARE BASED ON TIME AND/OR MILEAGE INTERVALS, COMPLETE THE FOLLOWING:

- 1) At what interval is oil changed: time _____ miles _____
- 2) At what interval is filter changed; time _____ miles _____
- 3) Is oil / oil-filter changed in response to service-reminder lamp? _____
- 4) Who performs this work? _____

e. What is the longest period by months and mileage your vehicle has gone between oil changes? (SEE c.AND d. ABOVE TO VERIFY AND/OR CALCULATE THIS ANSWER.)

MONTHS _____ MILES _____
 CONTACT EPA IF EITHER IS MORE THAN 11,500 MILES OR 14 MONTHS.

f. What is the longest period by months and mileage your vehicle has gone between oil filter changes?

(SEE c AND d ABOVE TO VERIFY AND/OR CALCULATE THIS ANSWER.)

MONTHS _____ MILES _____

CONTACT EPA IF EITHER MORE THAN 11,500 MILES OF 14 MONTHS**g. What was the approximate date of your last oil and oil filter change?**OIL CHANGE: DATE _____ MILEAGE _____

PERFORMED BY _____

OIL FILTER CHANGE: DATE _____ MILEAGE _____

PERFORMED BY _____

22. a. IF OWNER ALSO HAS RECORDS SHOWING DATES AND MILEAGE OF TUNE-UPS, OBTAIN THE FOLLOWING INFORMATION.

How many times has your vehicle received a routine tune-up maintenance such as: ignition (or spark) timing adjustment, fuel system adjustment and spark plug replacement? If possible, please state what was performed during the tune-up.

DATE _____ / / IGNITION TIMING / / FUEL SYSTEM* ADJUSTMENT

MILEAGE _____ / / SPARK PLUG REPLACEMENT

PERFORMED BY _____

DATE _____ / / IGNITION TIMING / / FUEL SYSTEM* ADJUSTMENT

MILEAGE _____ / / SPARK PLUG REPLACEMENT

PERFORMED BY _____

*Carburetor or Fuel Injection System

CONTACT EPA IF SPARK PLUG CHANGE INTERVAL WAS EVER GREATER THAN 40,600 MILES.**b. IF OWNER DOES NOT HAVE RECORDS OF TUNE-UPS, BUT TUNE-UPS ARE PERFORMED BASED ON TIME/MILEAGE INTERVALS, COMPLETE THE FOLLOWING:**

- 1) At what interval is tune-up maintenance performed?

Months _____ Miles _____

- 2) What is the longest interval between spark plug changes?

Months _____ Miles _____

- 3) Who performs this work? _____

CONTACT EPA IF SPARK PLUG CHANGE INTERVAL WAS EVER GREATER THAN 40,600 MILES.

c. What other scheduled maintenance has been performed?

Description _____

Date _____ Mileage _____

Performed by _____

Description _____

Date _____ Mileage _____

Performed by _____

Description _____

Date _____ Mileage _____

Performed by _____

d. What is the largest amount of money you have ever spent for maintenance or repairs to your car?

_____ dollars _____ don't know

WHAT _____

WHY _____

WHEN _____

WHERE _____

23. a. Has any unscheduled maintenance (i.e., maintenance to correct a problem) been performed on your vehicle in the following areas?

	<u>YES</u>	<u>NO</u>
Engine	_____	_____
Fuel injection	_____	_____
Transmission, drive shaft, axle	_____	_____
Exhaust system	_____	_____
Ignition system/Electrical system	_____	_____
Cooling system	_____	_____
Fuel tank	_____	_____
Emission control system	_____	_____
Oxygen Sensor	_____	_____
Computerized engine system	_____	_____
Other	_____	_____

b. If the answer to any of the above items is yes, please describe what, why, when, and where.

WHAT _____

WHY _____

WHEN _____

WHERE _____

WHAT _____

WHY _____

WHEN _____

WHERE _____

WHAT _____

WHY _____

WHEN _____

WHERE _____

CONSULT EPA FOR ELIGIBILITY IF QUESTION (b) IS ANSWERED

**24. a. Have you had any performance or drivability problems with your vehicle?
(Including problems described in question 23.)**

YES / / NO / /

IF NO, GO TO NEXT NUMBERED QUESTION.

If yes, describe: _____

b. Would the problems you described fall into any of the following categories?

	<u>Never</u>	<u>Occasionally</u>	<u>Frequently</u>
1) Hard Starting	_____	_____	_____
2) Poor Cold Performance	_____	_____	_____
3) Poor Acceleration	_____	_____	_____
4) Hesitation	_____	_____	_____
5) Stalling	_____	_____	_____
6) Dieseling (after run)	_____	_____	_____
7) Back firing	_____	_____	_____
8) Stumbling	_____	_____	_____
9) Engine Knock	_____	_____	_____
10) Rough Idle	_____	_____	_____
11) Engine Misfiring	_____	_____	_____
12) Other	_____	_____	_____

Describe other problems? _____

c. What was done to eliminate performance problems(s)?

WHAT _____

WHEN _____

WHERE _____

WHAT _____

WHEN _____

WHERE _____

d. When did the problems you mentioned above occur?

- 1) When you first obtained the vehicle?
- 2) With normal use, but prior to any maintenance performed on your vehicle?
- 3) After maintenance by _____

e. How long did each problem exist? _____**f. Do you still experience performance problems?**

YES / / NO / /

Describe the problem _____

g. Would you say the general performance of your vehicle is:

- / / 1) Better than when you obtained it?
- / / 2) Worse than when you obtained it?
- / / 3) About the same as when you obtained it?

h. What percent of your driving is done:

In the city (stop and go driving)? _____%

On the Highway? _____%

CONSULT EPA FOR ELIGIBILITY IF QUESTION (c) IS ANSWERED

25. Have you ever operated your car so as to cause it to idle for extended periods of time (i.e., for more than 15 minutes)?

NO / / YES / / APPROX. NO OF TIMES _____

IF NO, GO TO NEXT NUMBERED QUESTION.

Describe the circumstances for each case: _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

26. Have you ever used synthetic oil in your vehicle's engine?

NO / / YES / / DON'T KNOW / /

If Yes, how many times?_____, what brand? _____

27. Have you ever received notice that your vehicle was involved in a recall campaign?

NO / / YES / /, approximate date _____

28. a. Describe the recall or give the recall number _____

b. Did you take your vehicle to a dealership for the recall repair?

YES / / NO / /

29. a. Are the original tires, which were on the vehicle when it was first purchased, still on the vehicle?

YES / / NO / / IF YES SKIP TO 29b.

IF NO, are any original tires still on the vehicle now?

YES / / NO / / IF NO, SKIP TO 29b.

Where are the remaining original tires positioned on the vehicle now? (i.e., left-front, right-rear, etc.) _____

What is the date of the most recent tire replacement? _____
IF WITHIN 60 DAYS, CHECK WITH EPA REP.

b. What are the make (i.e. Goodyear), model (i.e. Arriva), size (i.e. P185/70R14). Construction (i.e. Radial or Bias), and tread type (i.e. All Season) of each of the vehicle's tires.

	Make	Model	Size	Construction	Tread Type
Left front	_____	_____	_____	_____	_____

N001c/N002c

2008 VW/Audi

EF#8ADXV03.1374

Control No.N001c/N002cRXXC_____

Right front

Left rear

Right rear

30. Are the original rims, which were on the vehicle when first purchased, still on the vehicle?

YES / / NO / / CONSULT EPA IF NO.

If NO, explain _____

31. Have these tires ever been repaired? (e.g. flat tire repaired with a plug or a foam product, etc.)

YES / / NO / / DON'T KNOW / /

IF YES, DESCRIBE _____

CONSULT EPA IF YES OR DON'T KNOW.

32. a) Have you kept records of the maintenance and repairs performed on your vehicle?

YES / / NO / /

b) To prepare for testing, the glove box and trunk will need to be opened during by URS and EPA personnel. Frequently, records pertaining to the vehicle's maintenance history are found in the vehicle. Will you allow all records (those provided by you and those found) to be reviewed and duplicated?

YES / / NO / /

33. EPA needs to share your maintenance records with the manufacturer to correctly test the vehicle. Do you agree to this?

YES / / NO / /

IF RECORDS ARE AVAILABLE, INFORM OWNER THAT: It is important that they are brought to the lab for review and duplication.

INFORM THE OWNER THAT:

All valuables should be removed from the vehicle (including those in the glove box) prior to bringing the vehicle to the lab.

ALSO INFORM THE OWNER THAT: Due to the location of some systems, the glove box and trunk may need to be opened during maintenance by EPA and/or EPA contractors. Any records pertaining the vehicle's maintenance history found in the vehicle may need to be copied.

34. Has your vehicle received body or glass repair, or been partially or totally repainted?

_____ **Yes** _____ **No**

If yes: what, when, by whom and cost.

WHAT

WHEN

BY WHOM _____ COST _____

ACCEPT WHATEVER THE ANSWER.

35. Has your vehicle ever been equipped with rustproofing or undercoating?

 Yes No don't know If "yes", when and by whom.

ACCEPT WHATEVER THE ANSWER IS

COMMENTS: _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface. There is no handwriting or other markings on the paper.

VIN _____

State of _____ County of _____

I, _____,

being first duly sworn, depose and say:

I am the owner () and/or joint owner () and/or principal driver () of the vehicle described in this questionnaire and have personal knowledge of all matters discussed herein. I have read the responses to the questions stated above, and such responses are true and accurate to the best of my knowledge and belief.

(Signature)_____
(Date)

Subscribed and affirmed before me, a Notary Public, and I hereby certify that I am duly authorized by the laws of the State of Michigan, County of Washtenaw, to administer oaths.

(Seal)

Notary Public_____
(Date)

My commission expires: _____
(Date)

QUALIFICATION OF MAINTENANCE INFORMATION

Please check one of the following if the candidate owner is not the original owner of vehicle

_____.

_____ No, the present owner is not the original owner of the vehicle, but does have knowledge of its maintenance history. The answers on the telephone questionnaire are complete and accurate for the entire maintenance history of the vehicle. The reason for the owner's knowledge of the vehicle's history before its purchase has been noted below.

_____ No, the present owner is not the original owner and does not know the complete maintenance history of the vehicle. The answers to the telephone questionnaire are complete and accurate for the period after the purchase at _____ miles. Oil, filter and spark plug change intervals reported are those known to have occurred after that mileage. Events that occurred prior to that mileage are not included.

N001c/N002c

2008 VW/Audi

EF#8AD XV03.1374

Control No.N001c/N002cRXXC_____

The present mileage on this vehicle is approximately _____.

Signature of Procurement Clerk

IN-USE TESTING
MAINTENANCE BEFORE FTP

VEHICLE CONTROL # _____ VIN _____

VEHICLE MODEL _____ ENGINE FAMILY _____

ENGINE CODE/CALIBRATION _____ TRANSMISSION _____
(Speeds if-M/T)

ODOMETER _____ EVAP FAMILY _____

DATE _____ TIME _____ FUEL TYPE _____

NOTE: If any of the following items are not applicable to the vehicle being inspected, mark N/A.

1. Record the following information:

- a. Vehicle build date _____
- b. Actual tire sizes Left Front _____ Right Front _____
Left Rear _____ Right Rear _____
- c. GWR _____ Front _____ Rear _____ e. COLOR: Exterior _____
- d. Recall campaign sticker / / YES / / NO Interior _____
- Recall campaign number from sticker _____
- None found _____

2. Inspect the fuel filler neck for the presence of, and/or damage to the unleaded fuel restrictor. Use leaded nozzle to determine if restrictor is operational.

_____ ok
_____ damaged, describe _____
_____ not present

REJECT IF RESTRICTOR IS DAMAGED OR LEADED NOZZLE FITS INTO FUEL FILLER NECK

3. Remove a sample of fuel from the tank and deliver to chem. lab for analysis. _____

4. Determine the axle ratio; make 10 wheel revolutions (applicable to rear-drive only).

(no. of driveshaft revolutions X2) = _____ X 2 = _____

(no. of wheel revolutions) 10

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

5.

Check brakes for excessive drag. Adjust if necessary.

_____ brake drag ok

_____ excessive brake drag (adjusted)

6. Inspect catalyst body, if so equipped, for discoloration, signs of damage, bulges, burn-out or evidence of plug removal.

_____ catalyst ok

other (describe) _____

7. Record the following part numbers.

Catalyst _____ PROM _____

TPS Sensor _____ PCV valve _____

Throttle body _____ ECM (computer) _____

O2 Sensor _____ EGR valve _____

8. a. Record trouble codes MIL or pending codes in vehicle's computer system at beginning of EPA maintenance: _____

b. Readiness Tests

Catalyst _____ Evap System _____

Secondary Air _____ O2 Sensor _____

O2 Sensor Heater _____ EGR system _____

c. At the time during the maintenance, is the MIL on?

9. a. Check cooling system, both radiator and reservoir (if applicable) for coolant and fill if necessary.

Reservoir

_____ level ok

_____ level low _____ coolant added _____ (amount)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

Radiator

_____ level ok
_____ level low _____ coolant added _____ (amount)

b. Check coolant condition, replace if poor.

_____ coolant condition ok
_____ coolant condition poor, (specify) _____
_____ coolant replaced

c. Perform the following pressure checks:

Radiator cap pressure check; pressure applied: (need pressure) bar

_____ no leakage
_____ cap leaks
_____ cap does not release pressure
_____ cap replaced

Radiator pressure check; pressure applied: (need pressure) bar

_____ no leakage
_____ hoses and clamps ok
_____ radiator leaks
_____ leakage repaired

d. freeze protection level _____

TBD spec = -### degrees at ###% mixture adjusted to _____

10. Check drive belts. Replace if cracked, frayed, glazed or excessively worn. Adjust if loose

_____ belt (s) ok
_____ belt (s) adjusted or replaced, specify

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

11. Visually inspect battery for electrolyte level. If level is low add distilled water.

_____ level ok _____ level low _____ Water added

/ / Maintenance free battery (if equipped with an indicator, record observation).

12. Check the power steering fluid and add if necessary.

_____ not applicable _____ level low
_____ level ok _____ fluid added _____ (amount)

13. Visually inspect the vehicle for:

- a. Signs of obvious tampering.

_____ none found _____ yes
Describe _____

- b. Fuel system plug (s). Plug location: _____

_____ all present and intact

_____ plug (s) missing; Describe _____

14. Check all fuel system linkages for free operation. (throttle linkages.)

_____ Free operation

_____ Sticking, binding, etc.; describe _____

_____ Repaired, describe _____

15. Check the condition of the hoses of the following systems for cuts, cracks, or hardening. Check for correct routing of hoses. Check function where indicated, repair if appropriate.

- a. Air cleaner hoses.

_____ correctly routed, ok condition

_____ air cleaner door functional

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

b. Spark timing control hoses.

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

c. Crankcase emission control hoses.

_____ correctly routed, ok condition

_____ air moves through PCV system

_____ not ok, specify _____

_____ repaired or replaced, describe _____

d. EGR system hoses.

_____ correctly routed, ok condition

rpm required for movement _____ rpm

_____ not ok, specify _____

_____ repaired or replace, describe _____

e. Evaporative emission system hoses.

_____ correctly routed, ok condition, vent and purge functions OK

_____ no ok, specify _____

_____ repaired or replaced, describe _____

f. Air injection system hoses.

_____ not applicable

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

g. Speed control system.

/ / O.E. system / / non-O.E. system / / not applicable

For O.E. system:

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

For non-O.E. system:

/ / System disconnected at throttle

h. List problems found with any other vacuum hoses.

_____ no other problems found

_____ problems found, specify _____

Action taken _____

16. Start engine Time _____

Engine warm Time _____

(Vehicles equipped with an electric cooling fan should be run until fan operates)

Electric cooling fan operates YES / / NO / / Not equipped / /
with an electric cooling fan

If NO, describe _____

17. Check the automatic transmission fluid level and add if necessary.

_____ not applicable _____ level low

_____ level ok _____ fluid added

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

18. Check electrical wiring for proper connections and integrity of wires (idle solenoid, ignition and spark control, engine temperature switches, sensors, etc.).

_____ wiring ok
 _____ not ok, specify _____
 _____ repaired or replaced, describe _____

19. Exhaust System

- a. _____ Drain holes plugged in exhaust system
 _____ Not applicable
- b. Check exhaust system for leaks with engine running.
 _____ No leaks
 _____ System leaks; location _____
 _____ Leaks repaired; describe _____

20. a. Remove all spark plugs. See emission label to determine if plug is O.E. Record the information for the plug(s) removed.

Specified O.E. make and number _____

Specified gap _____

b. Check compression

Compression Spec. please provide _____

(Always use a fully charged battery to obtain engine speed of 250 rpm or more)

Cylinder No.	Brand	Part No.	Gap	Condition	Compression
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ MANUFACTURER REPRESENTATIVE _____ EPA REPRESENTATIVE _____

If actual plugs are non-O.E., are they equivalent to O.E.?

_____ yes _____ no _____ Unknown _____ Not Applicable

Replace ALL plugs with O.E. plugs.

List brand and type of new plugs installed: _____

21. Check valve clearances (if applicable) and adjust if necessary. See VECI label (ONLY IF RECORDS SHOW THAT ROCKER ARM OR LIFTERS HAVE BEEN REMOVED OR REPLACED)

	Spec:		Spec:
Intake	_____	(Other)	_____
Exhaust	_____		

	1	2	3	4	5	6	7	8
As Received:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____
Set to:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____

22. Check the following to determine whether they are non-O.E. parts and their condition. Replace any found to be excessively worn, or dirty, or fouled, or if parts are not equivalent to O.E. Also, replace parts for which removal necessitates replacement.

	O.E.	NON.-O.E.	NOT APPL.	CONDITION	MAINTENANCE
a. air filter	_____	_____	_____	_____	_____

NOTE: Manufacturer recommended air cleaner filter is: _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC	MANUFACTURER REPRESENTATIVE	EPA REPRESENTATIVE
----------	-----------------------------	--------------------

b. oil filter _____

c. fuel filter _____

d. ignition wires _____

e. distributor cap _____

f. distributor rotor _____

g. PCV valve _____

h. PCV filter _____

i. air conditioner _____

j. fuel filler cap _____

k. List below any other non-O.E. parts found in the visual check and their condition and maintenance _____ None Non-O.E. _____

NOTE: Manufacturer recommended air cleaner filter is: What is the recommended air cleaner?

23. a. Check oil level.

_____ oil level ok _____ oil level below 1/2 qt.

b. Replace oil and filter as recommended by manufacturer:

#W## GF# oil; engine oil filter: _____

_____ oil and oil filter replaced

24. For LDTs only (#24 and #25)

Do only if the truck has over _____ miles or is over _____ months old.

Is the EGR maintenance light on? Yes _____ No _____

If the EGR light is on and the maintenance has not been performed previously by the owner (from the owner's records), perform the following :

25. Verify if O2 maintenance has been performed (from owner's records)

Yes _____ No _____
ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ MANUFACTURER REPRESENTATIVE _____ EPA REPRESENTATIVE _____

If yes, when? _____

If O2 maintenance has not been performed, perform the following:

Additional maintenance items to be performed:

26. Start engine Time _____

Engine warm Time _____

27. Preparation for parameter set.

_____ engine at normal operating temperature

_____ accessory equipment off

PERFORM THE FOLLOWING CHECKS AND ADJUSTMENTS ACCORDING TO THE PROCEDURES AND INSTRUCTIONS SPECIFIED ON THE EMISSION LABEL AND/OR THE SHOP MANUAL.

28. Check idle ignition timing and adjust if necessary.

gear setting _____

as received _____ at _____ rpm

spec.* _____ at _____ rpm

set to _____ at _____ rpm

*See VECI label and/or shop manual.

29. Check and adjust, if necessary, the idle speed(s) settings.

Idle speed adjustment plugs present / /yes / / no / / N/A

If idle is out of spec. see VECI label and/or shop manual.

a. Curb idle speed

gear setting _____ observed _____ rpm

spec.* _____ rpm set to _____ rpm

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

*See VECI label and/or shop manual

b. TPS output voltage. (Curb idle speed)

observed _____ vdc

Spec. _____

30. List any comments relevant to the inspection performed on this vehicle:

31. Record Trouble Codes (after M-2)

32. Attach any special procedures to this form.

Special procedures attached? Y / N

Time completed _____

Date _____

Signature of mechanic and observers:

MECHANIC _____

EPA REPRESENTATIVE _____

MANUFACTURER REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

Comments:

[illegible]

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/25/2010 10:34:15 PM
Subject: Re: VW Group: Test Type Question
([embedded image](#))
([embedded image](#))

Verify doesn't have a separate procedure name for it. Its still called a FTP, only difference is there are 2 hot stabilized bags instead of double weighting the bag 2. On my side I have it specified as 4 bags to denote it but you may not see that.

I also requested PM measurement but Verify erased it. Its on my hard copy but not in the system so I have to re-request it.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/25/2010 03:57 PM
Subject: VW Group: Test Type Question

Hello Jim,

The tests listed for the Touareg Hybrid (T.G.: BVWXT03.0HEV) in Verify are 1 FTP, 1 HWFE and 2 US06 (I'm guessing one 2-Bag and one 1-Bag w/PM). See highlighted info below.

The FTP is listed as type 21 which is a standard Federal fuel 2-day exhaust (w/can load).

Is this correct or will it be a UDDS? Is this just a limitation of the Verify System - maybe it hasn't been coded to indicate a UDDS test yet?

Bob Hart

Vehicle selected for Test VW526710023, Supplemental Information needed - Message

From: Verify Administrator
Subject: Vehicle selected for Test VW526710023, Supplemental Information needed
Date: Fri 8/13/2010 1:26 PM

Your recent submission has been selected by the EPA for Confirmatory Testing for the following vehicle:
Manufacturer: VWX Vehicle ID: VW526710023 Vehicle Configuration: 0 Please submit your supplemental information as soon as possible so that the EPA can schedule a test date. Below are the specific tests that will be run: 3 - HWFE 61 - Tier 2 Cert Gasoline 21 - Federal fuel 2-day exhaust (w/can load) 61 - Tier 2 Cert Gasoline 90 - US06 61 - Tier 2 Cert Gasoline 90 - US06 61 - Tier 2 Cert Gasoline

Manufacturer Code: VWX
Vehicle ID: VW526710023
Vehicle Configuration #: 0
Test Group Name: BVWXT03.0HEV
Transaction Identifier: _edc7f15d-c98b-40ac-9520-7f64fb8b3c88

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Linc Wehrly/AA/USEPA/US@EPA;Roberts French/AA/USEPA/US@EPA;Mary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; oberts French/AA/USEPA/US@EPA;Mary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; ary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; avid Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; Giles, Michael" [michael.giles@vw.com]
From: "Kata, Leonard"
Sent: Wed 8/25/2010 10:54:35 PM
Subject: Volkswagen Meeting with EPA Regarding Early CO2 Credits
[EARLY CREDIT CALC.pdf](#)

Hello all:

As you may recall, Volkswagen met with you and other EPA staff members to discuss our interpretation of the early CO2 credits portion of the final GHG rule. We also raised a number of questions. At the end of the meeting we began to present a sample early credit determination, based on a preliminary version of an early credit calculation tool. However, it was difficult to follow without some prior study. We agreed to provide a written version.

Attached is a sample calculation that was prepared by hand to check against the tool that we are developing. As of now, the result of the hand calculations match the automated version. The attached version also explains the assumptions made in understanding the regulations and making the calculations. We would appreciate EPA review of this example to assure us that we are on the right track.

I will file a formal copy of the information through VERIFY, along with a marked-up copy of the slides presented at our meeting. The mark-up are the EPA comments. Please note that there are still some open issues. One in particular concerns the determination of CAFE-based credits as described for Pathway 3.

The current calculations are only for CO2 credits. We stated in the meeting that we are still evaluating early A/C credits and would come back to EPA on that topic.

Finally, there was one slide at the end of the presentation (Slide 31) that we did not have time to cover. It pertains to CH4 and N2O compliance procedures. We would like EPA concurrence with the compliance approaches presented. We also questioned the requirement of having to apply either the stand-alone CH4 and N2O compliance approach or the incorporation of CH4 and N2O in the CREE calculation to the entire fleet, and whether there is any flexibility on this point.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 8/25/2010 11:02:08 PM
Subject: Re: Lambo Catalyst Bypass

I found the old and new writeups describing the Lamborghini proposal for the catalyst bypass system and read them.. Given that 2 of the 3 catalysts are still active in the system even during bypass, the catalyst efficiency is limited during high load/rpm due to residence time and A/F ratio, and the benefits of preventing overtemperaturing of the catalyst, I approve the use of the proposed bypass system.

On page 9, the graphs shows that the bypass opens at 60% load at 3750 rpm. The following temperature map shows this as the very beginning of elevated catalyst temperatures. Please remind Lamborghini that the catalyst bypass is justified for temperature protection but I consider their lower cut point generous.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 08/23/2010 11:37 AM
Subject: Lambo Catalyst Bypass

Hello Jim:

Thanks for setting up the meeting with Audi last week, As always, we come away from these meetings having learned a lot.

As we discussed last week, I have submitted a couple of documents regarding the Lamborghini proposal through VERIFY. The first was the initial request, and the second was in response to your question about the prior approval.

We are getting close for production timing, so an EPA response would be appreciated.

Best regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.

Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Thur 8/26/2010 1:42:32 PM
Subject: Release Request for Test Vehicle VW416 80218 cfg. 0

Hello Jim,

Volkswagen has accepted the test results for Test Vehicle VW416 80218 cfg. 0 (VW Tiguan).

Please release the vehicle for pick-up on Monday, August 26, 2010.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Tue 8/31/2010 2:42:15 PM
Subject: test group 8AD XV02.0366
sebastian.berenz@vw.com

Hello Mrs. Sohacki,

I'm just wondering if everything is ok with the 2.0l surveillance testings at your lab.

Please let me know if you need anything from our side or if there are any results on the cars.

Thank you very much.

Sincere regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: Linc Wehrly/AA/USEPA/US@EPA;Roberts French/AA/USEPA/US@EPA;Mary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; oberts French/AA/USEPA/US@EPA;Mary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; ary Manners/AA/USEPA/US@EPA;David Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; avid Good/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]; Giles, Michael" [michael.giles@vw.com]
From: "Kata, Leonard"
Sent: Wed 9/1/2010 4:21:56 PM
Subject: RE: Volkswagen Meeting with EPA Regarding Early CO2 Credits

To all:

Just a reminder that we would appreciate your thoughts on the early credit exercise submitted to EPA. The documents attached to the earlier e-mail have been downloaded in the VERIFY system, along with a marked-up copy of the slides from our July 1, 2010 meeting. The mark-ups reflect the EPA comments made at the meeting.

We appreciate your verification of the early credit calculation procedure and an interpretation regarding the open issue on Pathway 3 (CAFE –based standard using a CAFE calculation with total federal sales versus sales from states other than California and Section 177 states).

Please feel free to contact me with any questions.

Best regards,.

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

From: Kata, Leonard

Sent: Wednesday, August 25, 2010 6:55 PM

To: Wehrly.Linc@epamail.epa.gov; 'french.roberts@epa.gov'; 'manners.mary@epa.gov';

Good.David@epamail.epa.gov; 'Snyder.Jim@epamail.epa.gov'

Cc: Kohnen, Christoph (VWGoA); Johnson, Stuart; Giles, Michael

Subject: Volkswagen Meeting with EPA Regarding Early CO2 Credits

Hello all:

As you may recall, Volkswagen met with you and other EPA staff members to discuss our interpretation of the early CO2 credits portion of the final GHG rule. We also raised a number of questions. At the end of the meeting we began to present a sample early credit determination, based on a preliminary version of an early credit calculation tool. However, it was difficult to follow without some prior study. We agreed to provide a written version.

Attached is a sample calculation that was prepared by hand to check against the tool that we are developing. As of now, the result of the hand calculations match the automated version. The attached version also explains the assumptions made in understanding the regulations and making the calculations. We would appreciate EPA review of this example to assure us that we are on the right track.

I will file a formal copy of the information through VERIFY, along with a marked-up copy of the slides presented at our meeting. The mark-up are the EPA comments. Please note that there are still some open issues. One in particular concerns the determination of CAFE-based credits as described for Pathway 3.

The current calculations are only for CO2 credits. We stated in the meeting that we are still evaluating early A/C credits and would come back to EPA on that topic.

Finally, there was one slide at the end of the presentation (Slide 31) that we did not have time to cover. It pertains to CH₄ and N₂O compliance procedures. We would like EPA concurrence with the compliance approaches presented. We also questioned the requirement of having to apply either the stand-alone CH₄ and N₂O compliance approach or the incorporation of CH₄ and N₂O in the CREE calculation to the entire fleet, and whether there is any flexibility on this point.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
Cc: "Reisner, Axel, Dr. (EASZ/1)" [axel.reisner@volkswagen.de]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 9/2/2010 8:38:37 PM
Subject: Vw test results pending

Vince, I won't be in Friday. If the results on today's test of the VW Jetta VW36100250 are released, please email them to Axel (email above) so he can determine whether to stay or head home.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;"Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: "Reisner, Axel, Dr. (EASZ/1)" [axel.reisner@volkswagen.de]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]; N=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 9/2/2010 8:45:42 PM
Subject: Re: Vw test results pending

Looks like the data is already in Verify.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Jim Snyder/AA/USEPA/US
To: Vincent Mazaitis/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA
Cc: "Reisner, Axel, Dr. (EASZ/1)" <axel.reisner@volkswagen.de>
Date: 09/02/2010 04:38 PM
Subject: Vw test results pending

Vince, I won't be in Friday. If the results on today's test of the VW Jetta VW36100250 are released, please email them to Axel (email above) so he can determine whether to stay or head home.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: axel.reisner@volkswagen.de[]
Cc: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;"Hart, Robert (VWoA)" [Robert.Hart@vw.com]; Hart, Robert (VWoA)" [Robert.Hart@vw.com]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US
Sent: Fri 9/3/2010 11:07:16 AM
Subject: Re: Vw test results pending
VW36100250 9-2-10.pdf

Good morning Axel,

Please find enclosed the Laboratory test results for VW36100250. If you have any questions or concerns, please contact me.

Thanks Axel,

Best regards,

Vince Mazaitis

From: Jim Snyder/AA/USEPA/US
To: Jim Snyder/AA/USEPA/US@EPA, "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
Cc: "Reisner, Axel, Dr. (EASZ/1)" <axel.reisner@volkswagen.de>, Stephen Healy/AA/USEPA/US@EPA, Vincent Mazaitis/AA/USEPA/US@EPA
Date: 09/02/2010 04:45 PM
Subject: Re: Vw test results pending

Looks like the data is already in Verify.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Jim Snyder/AA/USEPA/US
To: Vincent Mazaitis/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA
Cc: "Reisner, Axel, Dr. (EASZ/1)" <axel.reisner@volkswagen.de>
Date: 09/02/2010 04:38 PM
Subject: Vw test results pending

Vince, I won't be in Friday. If the results on today's test of the VW Jetta VW36100250 are released,

please email them to Axel (email above) so he can determine whether to stay or head home.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

CER

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-008

Vehicle ID: VW36100250

Test Information



Test Date: 9/2/2010

MFR Name: VOLKSWAGEN

Key Start: 13:16:19

MFR Codes: 590 VWX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 89 us062bag (us06warmup_2bagus06)

Shift Schedule: A09980041

Calculation Method: Gasoline

Beginning Odometer: 003455.0 MI

Pretest Remarks:

Drive Schedule: us06warmup_2bagus06

Bag Data

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Phase 1						
Sample	6.218	340.639	0.168	0.826	3.387	
Ambient	2.360	0.000	0.011	0.042	1.898	
Net Concentration	4.010	340.639	0.157	0.787	1.611	2.168

Remarks:

Phase 2

Sample	8.161	498.346	0.208	1.128	4.495	
Ambient	2.392	0.000	0.009	0.043	1.899	
Net Concentration	5.980	498.346	0.199	1.088	2.763	2.821

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.080	13.764	0.010	499.5	0.037	0.043 / 0.045	17.054
Phase 2	0.052	8.787	0.005	301.6	0.028	0.025 / 0.026	28.176
Composite	0.05842	9.88776	0.00632	345.356	0.02999	(NMOG=1.04xNMHC) 0.0288 / 0.0299	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #:
Phase 1	17.04		D329 - FWD
Phase 2	28.15		Inertia: 3250
			EPA Set Co A: 5.22
			EPA Set Co B: 0.379
			EPA Set Co C: 0.01389
Composite	24.62		

Emissions Bench: Mexa 7200sle

v100414 - d329 EPAVDAEm100902122739

Page 1 of 2

Print Time 02-Sep-2010 13:40

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-008

Vehicle ID: VW36100250

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.142	24.353	0.017	883.7	0.066	0.077	1.143
Phase 2	0.325	54.736	0.033	1878.7	0.174	0.153	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.99	28.99		
Avg Cell Temp (degF)	74.58	74.64		
Dew Point (degF)	51.52	51.53		
Specific Humidity (grains/lbm)	58.54	58.56		
NOx Corr Factor	0.9282	0.9283		
CO2 Dilution Factor	15.567	11.372		
CFV Vmix (scf @68F)	2168.38	3331.35		
CVS Flow Rate Avg (scfm)	548.96	547.62		

Fan Placement: US06 Only - One Large Fan - Down - Front

Phase Time (secs)	130.01	364.99	107.00
Distance (miles)	1.769	6.229	
Bag Analysis Time (secs)	110.2	322.1	

MFR Test Results

for Procedure 90 US06

MFR Number 1E+07	HC 0.0297	CO 2.24	NOx 0.0067	CO2 296	NMOG 0	NonMeth HC 0.0208
---------------------	--------------	------------	---------------	------------	-----------	----------------------

Odometer
3305 M

MPG
29.7

MFR Lab: Volkswagen AG, Dept EASZ/1

MPG is 20.61 % higher than EPA MPG

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

Hand load ABC, 2000/15, tailpipe BP OK DV 9-2-10

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

CERO

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-009

Vehicle ID: VW36100250

Test Information



Test Date: 9/2/2010

MFR Name VOLKSWAGEN

Key Start: 12:03:18

MFR Codes: 590 VWX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Shift Schedule: A09980011

Calculation Method: Gasoline

Beginning Odometer: 003434.0 MI

Pretest Remarks:

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.416	6.733	0.059	1.073	2.376	
Ambient	2.453	0.000	0.013	0.044	1.922	
Net Concentration	1.159	6.733	0.047	1.032	0.608	0.464

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.008	0.089	0.001	215.4	0.005	0.003 / 0.003	41.253

(NMOG=1.04xNMHC)

Fuel Economy

Gasoline MPG

Dyno Settings

Dyno #: D329 - FWD

Phase 1 41.21

Inertia: 3250

EPA Set Co A: 5.22

EPA Set Co B: 0.379

EPA Set Co C: 0.01389

Emissions Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0225-009

Vehicle ID: VW36100250

Results	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.078	0.914	0.010	2203.2	0.047	0.031	1.143



Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.99			
Avg Cell Temp (degF)	74.81			
Dew Point (degF)	51.24			
Specific Humidity (grains/lbm)	57.93			
NOx Corr Factor	0.9257			
CO2 Dilution Factor	12.481			
CFV Vmix (scf @68F)	4118.72			

CVS Flow Rate Avg (scfm) 323.00

Fan Placement: One Fan - Down - Front

Phase Time (secs)	765.10
Distance (miles)	10.230
Bag Analysis Time (secs)	105.2

MFR Test Results

for Procedure 3 HWFE

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0112	0.11	0	221	0	0.0073

Odometer	MPG	PM
3175 M	40.1	0.018

MPG is -2.70 % lower than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21
Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By:  Date: 9-2-10

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 9/7/2010 8:50:43 PM
Subject: Data

Hi, Sebastian.

I am having the data scanned for vehicle N148-0092 but the data that I have for N148-0184 is not the final data. I will send that to you as soon as I get it.

Sorry for the confusion.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 9/8/2010 12:59:11 PM
Subject: Test data for in-use vehicle N148-0092
[N148RXX0092.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

CISD

NVFEL Laboratory Test Data						CVS	
Final Laboratory Test Results							
Test Number: 2010-0315-002				Vehicle ID: N148RXX-0092			
Test Date: 8/27/2010				MFR Name: AUDI			
Key Start / Hot Soak: 08:52:30 / 09:45				MFR Codes: 640 ADX			
Fuel Container ID: F00023				Config #: 00			
Fuel Type: 61 Tier 2 Cert Test Fuel				Transmission: AUTO			
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)				Shift Schedule: A09980005			
Calculation Method: Gasoline				Beginning Odometer: 029524.0 MI			
Pretest Remarks:				Drive Schedule: ftp3bag			
				Soak Period: #VALUE!			
Bag Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	12.497	34.568	0.953	0.967	3.318		
Ambient	2.819	1.186	0.046	0.048	2.188		
Net Concentration	9.882	33.468	0.910	0.923	1.289	8.491	
Remarks:							
Phase 2							
Sample	2.782	6.391	0.270	0.601	2.107		
Ambient	2.743	0.241	0.048	0.047	2.167		
Net Concentration	0.162	6.161	0.224	0.556	0.037	0.122	
Remarks:							
Phase 3							
Sample	2.988	8.047	0.233	0.820	2.413		
Ambient	2.719	0.253	0.046	0.046	2.159		
Net Concentration	0.436	7.810	0.190	0.777	0.386	0.019	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks: <u>This test has particulate results.</u>							
Results							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.128	0.875	0.035	379.1	0.019	0.110	23.344
Phase 2	0.003	0.257	0.014	365.2	0.001	0.003	24.317
Phase 3	0.006	0.204	0.007	318.1	0.006	0.000	27.920
Weighted	0.02984	0.37076	0.01661	355.133	0.00605	0.02420	
Fuel Economy							
	<u>Gasoline MPG</u>	<u>Dyno Settings</u>					
Phase 1	23.32	Dyno #: D329 - FWD					
Phase 2	24.29	Inertia: 3875					
Phase 3	27.89	EPA Set Co A: 9.42					
		EPA Set Co B: 0.3104					
		EPA Set Co C: 0.01553					
Weighted	24.97	Emissions Bench: Mexa 7200dle					
v100414 - d329 EPAVDAEm100827082427 Page 1 of 2 Print Time 27-Aug-2010 13:24							

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0315-002

Vehicle ID: N148RXX-0092

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.459	3.142	0.127	1361.2	0.069	0.395	1.079
Phase 2	0.013	0.991	0.054	1405.6	0.003	0.010	
Phase 3	0.020	0.731	0.026	1142.4	0.021	0.001	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.25	29.25	29.25	
Avg Cell Temp (degF)	74.46	74.81	74.36	
Dew Point (degF)	48.89	49.42	48.96	
Specific Humidity (grains/lbm)	52.55	53.60	52.69	
NOx Corr Factor	0.9046	0.9086	0.9051	
CO2 Dilution Factor	13.792	22.258	16.313	
CFV Vmix (scf @68F)	2834.48	4853.97	2825.54	
Total Vmix (scf@68F)	2847.30	4876.93	2838.85	
CVS Flow Rate Avg (scfm)	335.84	334.80	334.85	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	506.40	869.90	506.31	
Distance (miles)	3.591	3.849	3.591	
Bag Analysis Time (secs)	953.9	148.4	91.1	

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 8/27/10

NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Number: 2010-0315-002

Vehicle ID: N148RXX-0092

Test Information



Test Date: 8/27/2010
Key Start: 08:52:30 / 09:45
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980005
Beginning Odometer: 029524.0 MI
Drive Schedule: ftp3bag
Soak Period: #VALUE!

All filter weights are corrected for buoyancy.

Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1								
	A	38360	142.8949	142.9352	0.04034	28.737	8.003	
	B	38361	143.4579	143.5051	0.04715	30.294	8.437	
	C	38362	145.9378	145.9776	0.03987	25.834	7.195	
Remarks:								
Phase 2								
	A	38363	142.7412	142.7729	0.03173	20.096	5.222	
	B	38364	142.3086	142.3333	0.02472	15.733	4.088	
	C	38365	143.3684	143.3916	0.02323	14.916	3.876	
Remarks:								
Phase 3								
	A	38366	145.7527	145.7776	0.02485	15.983	4.451	
	B	38367	146.1336	146.1604	0.02686	17.138	4.772	
	C	38368	143.1315	143.1602	0.02863	18.286	5.092	
Remarks:								
Phase 4								
Remarks: This test has particulate results.								

Average Results

	Net Wt mg	Total Mass mg	Total Mass mg / mi
Phase 1	0.04246	28.289	7.878
Phase 2	0.02656	16.915	4.395
Phase 3	0.02678	17.135	4.771

All filter weights are corrected for buoyancy.

Weighted All Filters:

5.22159

Reference Filter Stability Check

2% of Avg Net or 0.01 mg	No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check PASS/FAIL	Dyno #: D329 - FWD Inertia: 3875
0.01	1	143.93683	143.94074	0.00391	PASS	EPA Set Co A: 9.42
	2	146.19074	146.19747	0.00673	PASS	EPA Set Co B: 0.3104
						EPA Set Co C: 0.01553

Emissions Bench Mexa 7200dle



NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Number: 2010-0315-002

Vehicle ID: N148RXX-0092

WEIGHING CHAMBER		<u>Buoyancy</u>	<u>Operator</u>	<u>Chamber Temp</u>	<u>Dew Point</u>	<u>Barometer</u>	<u>Last Change in Status</u>
	Timestamp	Factor	(id)	(°F)	(°F)	("Hg)	Status @ timestamp
Pre-test	8/24/10 16:54	1.0011124	022298	71.9	49.2	29.05	NORM @ 08/21/10 05:01:57
Post-test	8/27/10 12:46	1.0011215	062459	70.9	48.8	29.23	NORM @ 08/26/10 12:35:51

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.25	29.25	29.25	
Avg Cell Temp (degF)	74.46	74.81	74.36	
Dew Point (degF)	48.89	49.42	48.96	
Specific Humidity (grains/lbm)	52.55	53.60	52.69	
NOx Corr Factor	0.9046	0.9086	0.9051	
Dilution Factor	13.79	22.26	16.31	
CFV Vmix (scf @68F)	2834.48	4853.97	2825.54	
Sample Volume A (scf @68F)	3.997	7.700	4.414	
Sample Volume B (scf @68F)	4.432	7.662	4.449	
Sample Volume C (scf @68F)	4.394	7.594	4.445	
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	4.274	7.652	4.436	
Total Vmix (scf @68F)	2847.30	4876.93	2838.85	
Phase Time (sec)	506.40	869.90	506.31	
Distance (miles)	3.591	3.849	3.591	
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	42.2	41.6	41.5	
PSU Dil Air B (degC)	43.9	43.4	43.3	
PSU Dil Air C (degC)	40.7	40.3	40.4	
PSU Filter A (degC)	45.3	46.9	44.9	
PSU Filter B (degC)	46.8	46.1	45.6	
PSU Filter C (degC)	44.9	44.8	44.8	
PSU Dil Flow A (lpm)	29.9	30.0	29.9	
PSU Dil Flow B (lpm)	29.9	30.0	29.9	
PSU Dil Flow C (lpm)	30.0	29.9	29.9	
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366

Date: 8/27/10

C15D

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0315-003

Vehicle ID: N148RXX-0092

Test Information



Test Date: 8/27/2010

Key Start: 10:17:56

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 029524.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID	CO	NOx	CO2	CH4	NonMeth HC
	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	3.289	9.827	0.237	1.097	2.276	
Ambient	2.515	0.157	0.022	0.042	2.051	
Net Concentration	0.980	9.683	0.217	1.058	0.393	0.555

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks: This test has particulate results.

Results

	HC-FID	CO	NOx	CO2	CH4	NMHC	Vol MPG
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.007	0.132	0.004	226.7	0.003	0.004	39.187

Fuel Economy

Gasoline MPG

Phase 1 39.15

Dyno Settings

Dyno #: D329 - FWD

Inertia: 3875

EPA Set Co A: 9.42

EPA Set Co B: 0.3104

EPA Set Co C: 0.01553

Emissions Bench: Mexa 7200dle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0315-003

Vehicle ID: N148RXX-0092

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.068	1.354	0.045	2323.8	0.032	0.038	1.079

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.24			
Avg Cell Temp (degF)	74.42			
Dew Point (degF)	49.26			
Specific Humidity (grains/lbm)	53.30			
NOx Corr Factor	0.9074			
CO2 Dilution Factor	12.205			
CFV Vmix (scf @68F)	4220.78			
Total Vmix (scf@68F)	4240.71			
CVS Flow Rate Avg (scfm)	331.04			

Fan Placement: One Fan - Up - Front

Phase Time (secs)	765.00
Distance (miles)	10.252
Bag Analysis Time (secs)	75.2

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 8/27/10

NVFEL Laboratory Test Data

PARTICULATE

Final Laboratory Test Results

Test Number: 2010-0315-003

Vehicle ID: N148RXX-0092

Test Information



Test Date: 8/27/2010
Key Start: 10:17:56
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980011
Beginning Odometer: 029524.0 MI
Drive Schedule: hwfet_hwfet

All filter weights are corrected for buoyancy.

Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	38351	145.7503	145.7757	0.02544	16.096	1.570	
	B	38352	143.4387	143.4735	0.03483	22.071	2.153	
	C	38353	145.2516	145.2797	0.02814	18.266	1.782	

Remarks:

Phase 2

Remarks:

Phase 3

Remarks:

Phase 4

Remarks: This test has particulate results.

Average Results

	Net Wt mg	Total Mass mg	Total Mass mg / mi
Phase 1	0.02947	18.811	1.835

All filter weights are corrected for buoyancy.

Reference Filter Stability Check

2% of Avg Net or 0.01 mg	No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check PASS/FAIL	Dyno #: D329 - FWD Inertia: 3875
0.01	1	146.19085	146.19658	0.00572	PASS	EPA Set Co A: 9.42
	2	143.93785	143.94235	0.00450	PASS	EPA Set Co B: 0.3104
						EPA Set Co C: 0.01553

Emissions Bench Mexa 7200dle



NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Number: 2010-0315-003

Vehicle ID: N148RXX-0092

WEIGHING CHAMBER		<u>Buoyancy</u>	<u>Operator</u>	<u>Chamber Temp</u>	<u>Dew Point</u>	<u>Barometer</u>	<u>Last Change in Status</u>
	Timestamp	Factor	(id)	(°F)	(°F)	("Hg)	Status @ timestamp
Pre-test	8/24/10 15:45	1.0011139	000000	71.2	48.8	29.05	NORM @ 08/21/10 05:01:57
Post-test	8/27/10 11:59	1.0011222	062459	70.8	48.2	29.24	NORM @ 08/26/10 12:35:51

<u>Test Conditions</u>	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.24			
Avg Cell Temp (degF)	74.42			
Dew Point (degF)	49.26			
Specific Humidity (grains/lbm)	53.30			
NOx Corr Factor	0.9074			
Dilution Factor	12.20			
CFV Vmix (scf @68F)	4220.78			
Sample Volume A (scf @68F)	6.703			
Sample Volume B (scf @68F)	6.693			
Sample Volume C (scf @68F)	6.533			
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	6.643			
Total Vmix (scf @68F)	4240.71			
Phase Time (sec)	765.00			
Distance (miles)	10.252			
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	41.7			
PSU Dil Air B (degC)	43.4			
PSU Dil Air C (degC)	40.5			
PSU Filter A (degC)	45.6			
PSU Filter B (degC)	47.7			
PSU Filter C (degC)	45.8			
PSU Dil Flow A (lpm)	29.8			
PSU Dil Flow B (lpm)	29.8			
PSU Dil Flow C (lpm)	29.9			
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 8/27/10

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 9/8/2010 3:50:06 PM
Subject: Test data for in-use vehicles N148-0184 and N148-0299
[N148RXX-0299.pdf](#)
[N148RXX-0184.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

C15D

NVFEL Laboratory Test Data						CVS	
Final Laboratory Test Results							
Test Number: 2010-0321-002				Vehicle ID: N148RXX-0299			
Test Date: 9/3/2010				MFR Name: AUDI			
Key Start / Hot Soak: 09:33:34 / 09:41				MFR Codes: 640 ADX			
Fuel Container ID: F00023				Config #: 00			
Fuel Type: 61 Tier 2 Cert Test Fuel				Transmission: AUTO			
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp				Shift Schedule: A09980005			
Calculation Method: Gasoline				Beginning Odometer: 044485.0 MI			
Pretest Remarks:				Drive Schedule: ftp3bag			
				Soak Period: 23.6 hours			
Bag Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	10.694	27.812	1.511	0.972	2.908		
Ambient	2.309	1.106	0.023	0.043	1.947		
Net Concentration	8.553	26.786	1.490	0.932	1.102	7.363	
Remarks: All Filts A & C Excluded							
Phase 2							
Sample	2.360	7.863	0.249	0.607	1.909		
Ambient	2.234	0.050	0.024	0.043	1.952		
Net Concentration	0.227	7.815	0.227	0.566	0.046	0.178	
Remarks:							
Phase 3							
Sample	2.584	8.550	0.209	0.820	2.219		
Ambient	2.266	0.014	0.018	0.042	1.947		
Net Concentration	0.457	8.537	0.192	0.780	0.392	0.034	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks: This test has particulate results.							
Results	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.109	0.689	0.058	376.7	0.016	0.094	23.515
Phase 2	0.005	0.321	0.014	364.8	0.001	0.004	24.339
Phase 3	0.006	0.219	0.007	314.5	0.006	0.000	28.236
Weighted	0.02657	0.36906	0.02118	353.442	0.00550	0.02143	
Fuel Economy	<u>Gasoline MPG</u>	<u>Dyno Settings</u>					
Phase 1	23.49	Dyno #: D329 - FWD					
Phase 2	24.32	Inertia: 3875					
Phase 3	28.21	EPA Set Co A: 8.88					
		EPA Set Co B: 0.4089					
		EPA Set Co C: 0.01407					
Weighted	25.12	Emissions Bench: Mexa 7200dle					
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NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0321-002

Vehicle ID: N148RXX-0299

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.391	2.471	0.206	1350.7	0.058	0.336	1.079
Phase 2	0.018	1.235	0.054	1406.0	0.004	0.014	
Phase 3	0.021	0.785	0.027	1127.2	0.021	0.002	


Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.77	28.77	28.76	
Avg Cell Temp (degF)	74.75	74.73	74.72	
Dew Point (degF)	49.77	49.59	49.49	
Specific Humidity (grains/lbm)	55.22	54.86	54.67	
NOx Corr Factor	0.9149	0.9135	0.9128	
CO2 Dilution Factor	13.737	22.048	16.329	
CFV Vmix (scf @68F)	2788.64	4779.81	2780.94	
Total Vmix (scf@68F)	2797.60	4794.96	2790.27	
CVS Flow Rate Avg (scfm)	330.34	329.49	329.56	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	506.50	870.40	506.30	
Distance (miles)	3.586	3.854	3.584	
Bag Analysis Time (secs)	954.8	148.8	91.0	

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 9/7/10

C13D

NVFEL Laboratory Test Data						CVS																																				
Final Laboratory Test Results																																										
Test Number: 2010-0321-003				Vehicle ID: N148RXX-0299																																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">  </div> <div style="width: 45%;"> Test Information Test Date: 9/3/2010 Key Start: 11:06:21 Fuel Container ID: F00023 Fuel Type: 61 Tier 2 Cert Test Fuel Test Procedure: 03 HWFET (hwfetprep_hwfet) Calculation Method: Gasoline Pretest Remarks: </div> <div style="width: 40%;"> MFR Name: AUDI MFR Codes: 640 Config #: 00 Transmission: AUTO Shift Schedule: A09980011 Beginning Odometer: 044485.0 MI Drive Schedule: hwfet_hwfet </div> </div>																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Bag Data</th> <th style="text-align: center;">HC-FID</th> <th style="text-align: center;">CO</th> <th style="text-align: center;">NOx</th> <th style="text-align: center;">CO2</th> <th style="text-align: center;">CH4</th> <th style="text-align: center;">NonMeth HC</th> </tr> <tr> <th style="text-align: left;">Phase 1</th> <th style="text-align: center;">(ppmC)</th> <th style="text-align: center;">(ppm)</th> <th style="text-align: center;">(ppm)</th> <th style="text-align: center;">(%)</th> <th style="text-align: center;">(ppm)</th> <th style="text-align: center;">(ppmC)</th> </tr> </thead> <tbody> <tr> <td>Sample</td> <td style="text-align: center;">2.782</td> <td style="text-align: center;">9.594</td> <td style="text-align: center;">0.267</td> <td style="text-align: center;">1.107</td> <td style="text-align: center;">2.021</td> <td></td> </tr> <tr> <td>Ambient</td> <td style="text-align: center;">2.314</td> <td style="text-align: center;">0.048</td> <td style="text-align: center;">0.011</td> <td style="text-align: center;">0.042</td> <td style="text-align: center;">1.938</td> <td></td> </tr> <tr> <td>Net Concentration</td> <td style="text-align: center;">0.659</td> <td style="text-align: center;">9.550</td> <td style="text-align: center;">0.257</td> <td style="text-align: center;">1.069</td> <td style="text-align: center;">0.243</td> <td style="text-align: center;">0.397</td> </tr> </tbody> </table>								Bag Data	HC-FID	CO	NOx	CO2	CH4	NonMeth HC	Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	Sample	2.782	9.594	0.267	1.107	2.021		Ambient	2.314	0.048	0.011	0.042	1.938		Net Concentration	0.659	9.550	0.257	1.069	0.243	0.397
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Results	HC-FID	CO	NOx	CO2	CH4	NMHC	Vol MPG																																			
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)																																			
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Emissions Bench: Mexa 7200dle																																										
<div style="display: flex; justify-content: space-between; font-size: small;"> v100414 - d329 EPAVDAEm100903102205 Page 1 of 2 Print Time 07-Sep-2010 08:37 </div>																																										

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0321-003

Vehicle ID: N148RXX-0299

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.045	1.314	0.053	2311.5	0.019	0.027	1.079

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.76			
Avg Cell Temp (degF)	74.64			
Dew Point (degF)	48.93			
Specific Humidity (grains/lbm)	53.53			
NOx Corr Factor	0.9083			
CO2 Dilution Factor	12.091			
CFV Vmix (scf @68F)	4161.81			
Total Vmix (scf@68F)	4174.55			
CVS Flow Rate Avg (scfm)	326.42			

Fan Placement: One Fan - Up - Front
Phase Time (secs) 765.00
Distance (miles) 10.262
Bag Analysis Time (secs) 76.2

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 9/7/10

CISD

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results							
Test Number: 2010-0317-002			Vehicle ID: N148RXX-0184				
Test Date: 8/31/2010			MFR Name: AUDI				
Key Start / Hot Soak: 13:53:24 / 09:48			MFR Codes: 640		ADX		
Fuel Container ID: F00023			Config #: 00				
Fuel Type: 61 Tier 2 Cert Test Fuel			Transmission: AUTO				
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)			Shift Schedule: A09980005				
Calculation Method: Gasoline			Beginning Odometer: 039168.0 MI				
Pretest Remarks:			Drive Schedule: ftp3bag				
			Soak Period: 22.8 hours				
Bag Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	19.421	70.384	1.850	0.964	3.682		
Ambient	2.487	1.053	0.011	0.043	1.995		
Net Concentration	17.115	69.408	1.840	0.925	1.832	15.138	
Remarks: <u>Filts A & C Excluded</u>							
Phase 2							
Sample	2.546	10.002	0.216	0.605	1.912		
Ambient	2.421	0.063	0.008	0.043	1.987		
Net Concentration	0.234	9.942	0.208	0.564	0.016	0.218	
Remarks:							
Phase 3							
Sample	2.554	7.044	0.181	0.824	2.105		
Ambient	2.421	0.023	0.008	0.043	1.978		
Net Concentration	0.282	7.022	0.173	0.784	0.249	0.014	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks: <u>This test has particulate results.</u>							
Results							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.221	1.807	0.072	378.2	0.027	0.195	23.289
Phase 2	0.005	0.415	0.013	370.0	0.000	0.004	23.986
Phase 3	0.004	0.183	0.007	320.6	0.004	0.000	27.706
Weighted	0.04936	0.64015	0.02345	358.128	0.00689	0.04293	
Fuel Economy							
	<u>Gasoline MPG</u>				<u>Dyno Settings</u>	<u>Dyno #:</u>	
Phase 1	23.27					D329 - FWD	
Phase 2	23.96					Inertia: 3875	
Phase 3	27.68					EPA Set Co A: 7.73	
						EPA Set Co B: 0.3185	
						EPA Set Co C: 0.01541	
Weighted	24.73					Emissions Bench: Mexa 7200dle	

v100414 - d329 EPAVDAEm100831133119

Page 1 of 2

Print Time 07-Sep-2010 08:30

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0317-002

Vehicle ID: N148RXX-0184

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.792	6.488	0.257	1358.3	0.098	0.701	1.079
Phase 2	0.019	1.592	0.050	1420.7	0.001	0.017	
Phase 3	0.013	0.655	0.024	1149.4	0.013	0.001	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.17	29.17	29.17	
Avg Cell Temp (degF)	74.49	74.22	74.37	
Dew Point (degF)	49.65	49.62	49.38	
Specific Humidity (grains/lbm)	54.21	54.15	53.67	
NOx Corr Factor	0.9110	0.9108	0.9089	
CO2 Dilution Factor	13.769	22.096	16.238	
CFV Vmix (scf @68F)	2823.46	4839.85	2817.81	
Total Vmix (scf@68F)	2835.29	4857.90	2828.73	
CVS Flow Rate Avg (scfm)	334.53	333.71	333.80	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	506.40	870.20	506.50	
Distance (miles)	3.591	3.840	3.585	
Bag Analysis Time (secs)	954.3	148.5	92.1	

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 9/7/10

C111

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0317-003

Vehicle ID: N148RXX-0184

Test Information



Test Date: 8/31/2010

Key Start: 15:15:47

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 039168.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.146	10.988	0.202	1.108	2.078	
Ambient	2.448	0.059	0.005	0.042	1.970	
Net Concentration	0.901	10.934	0.198	1.069	0.271	0.608

Remarks: Filts A & C Exlcuded

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks: This test has particulate results.

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.006	0.149	0.004	228.4	0.002	0.004	38.887

Fuel Economy

Gasoline MPG

Dyno Settings

Dyno #: D329 - FWD

Phase 1 38.85

Inertia: 3875

EPA Set Co A: 7.73

EPA Set Co B: 0.3185

EPA Set Co C: 0.01541

Emissions Bench: Mexa 7200dle

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2010-0317-003

Vehicle ID: N148RXX-0184

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.062	1.525	0.041	2343.3	0.022	0.042	1.079

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.15			
Avg Cell Temp (degF)	74.62			
Dew Point (degF)	49.16			
Specific Humidity (grains/lbm)	53.26			
NOx Corr Factor	0.9073			
CO2 Dilution Factor	12.076			
CFV Vmix (scf @68F)	4211.25			
Total Vmix (scf@68F)	4229.08			
CVS Flow Rate Avg (scfm)	330.25			
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	765.10			
Distance (miles)	10.260			
Bag Analysis Time (secs)	75.2			

I have validated the data in accordance with the requirements of TP 730

Validated By: 21366 Date: 9/7/10

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 9/13/2010 6:23:48 PM
Subject: Verify issue

Bob, I talked to a Verify person about what you found. They recommended that you contact VerifyHelp and tell them what you found.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 9/13/2010 6:45:07 PM
Subject: test schedule update

Bob, I just heard from Vince that the Jetta did not prep today so it won't get tested tomorrow.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 9/14/2010 12:20:00 PM
Subject: RE: test schedule update

No, I just forgot that its only a hot test. Schedule came this morning and it is running today,

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: <Snyder.Jim@epamail.epa.gov>
Date: 09/13/2010 02:51 PM
Subject: RE: test schedule update

Hello Jim,

Is it standard EPA practice to do a prep the day before a US06? If so, do we have a new test date?

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Monday, September 13, 2010 2:45 PM
To: Hart, Robert (VWoA)
Subject: test schedule update

Bob, I just heard from Vince that the Jetta did not prep today so it won't get tested tomorrow.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 9/14/2010 7:33:46 PM
Subject: Jetta testing

The lab is running behind today. They haven't run the Jetta yet. They may not get to it today after all.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 9/15/2010 1:34:07 PM
Subject: jetta

They plan to retest it late morning/early afternoon.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 9/16/2010 2:12:36 PM
Subject: Meeting CA standards

Hi, Sebastian.

Following up on our discussion from last week, Class N 148 should meet all of the standards to which it was certified, including the CA standards. Because of this we will bring in 2 additional vehicles for testing. I'll notify you a week or so before the vehicles are brought in.

Thank you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Sohacki.Lynn@epamail.epa.gov[Sohacki.Lynn@epamail.epa.gov]
From: "Berenz, Sebastian"
Sent: Thur 9/16/2010 2:21:21 PM
Subject: RE: Meeting CA standards

Hello Lynn,

Thank you for that information.

Let me know when the first car will come in and we will come over.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, September 16, 2010 10:13 AM
To: Berenz, Sebastian
Subject: Meeting CA standards

Hi, Sebastian.

Following up on our discussion from last week, Class N 148 should meet all of the standards to which it was certified, including the CA standards. Because of this we will bring in 2 additional vehicles for testing. I'll notify you a week or so before the vehicles are brought in.

Thank you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 9/16/2010 5:38:21 PM
Subject: jetta departing

Bob, I signed off on veh.250, Ben said he would move it out for pickup. Vince will be in if there are any unexpected issues while picking it up tomorrow.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 9/16/2010 9:29:59 PM
Subject: 3rd us06 results
[jetta 2011 US06 3rd test.pdf](#)

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 9/21/2010 3:50:44 PM
Subject: VW Group: MY 2011 VW Touareg Hybrid

Hello Jim,

I uploaded a revised MY 2011 VW Group Common Sections today. You should now be able to find the Evap Family description.

The pages that were updated are listed on Section 15VW Page 1.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 9/21/2010 4:02:29 PM
Subject: Re: VW Group: MY 2011 VW Touareg Hybrid

Thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 09/21/2010 11:51 AM
Subject: VW Group: MY 2011 VW Touareg Hybrid

Hello Jim,

I uploaded a revised MY 2011 VW Group Common Sections today. You should now be able to find the Evap Family description.
The pages that were updated are listed on Section 15VW Page 1.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 9/22/2010 12:26:28 PM
Subject: Fw: EPA's Confirmatory Maintenance Form
N001c-002c TELEPHONE QUESTIONNAIRE.doc
N001 maintenance before FTP.doc

Hi, Sebastian.

I will need the information for the maintenance very soon. Also, I need to know what the maintenance schedule says regarding oil changes. Do you have a copy of the page from the owner's manual that you can send me?

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 09/22/2010 08:24 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
Date: 08/25/2010 04:20 PM
Subject: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

Attached is the form that we use during maintenances for vehicles in a confirmatory class. There are a few items that I need you to provide. I've indicated those things in red. Please fill in the blanks and return the file to me. Please also let me know if you have any questions.

In case you are interested in seeing the telephone questionnaire, I've attached that as well.

Thanks,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

OMB No. 2060-0086

Expires (02/08/2011)

**TELEPHONE QUESTIONNAIRE
FOR CONFIRMATORY CLASS:**

VEHICLE CONTROL NUMBER _____ DATE _____

ADMINISTERED BY _____

OWNER'S NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____
(CALL NUMBER BELOW THAT IS MARKED WITH AN "X")

TELEPHONE (Home) / ____ / _____ (Business) / ____ / _____

BEST TIME TO CALL _____

"WE ARE AUTHORIZED BY FEDERAL LAW TO COLLECT THIS INFORMATION. WHILE YOU ARE NOT REQUIRED TO RESPOND, YOUR COOPERATION IS NEEDED TO MAKE THE RESULTS OF THIS INVESTIGATION VALID."

DATE OF CONTACT _____ TIME OF CONTACT _____

INDIVIDUAL CONTACTED _____

TO BE COMPLETED _____ DATE AND TIME OF COMPLETION _____

You have been selected from a list of vehicle owners living in the Ann Arbor / Detroit area to participate in a study of vehicle emissions being conducted by the U.S. Environmental Protection Agency.

EPA is authorized by law to conduct this study and to offer incentives to you for your cooperation should you decide to participate. Your participation in this program is strictly voluntary.

The accuracy of the information that you provide is important. The information that you provide will be used by EPA along with emission results for your car to determine whether the automobile manufacturer has complied with clean air standards established by Congress. The test results from your car will not be used by EPA to take action against you. Your cooperation will help EPA's efforts to control air pollution due to motor vehicle emissions.

Public reporting burden for this collection of information is estimated to vary from 1 to 60 minutes per response, with an average of 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Director, Regulatory Information Division, 2136, U.S. Environmental Protection Agency, 401 M St., S.W. Washington, DC. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

These are the conditions of the program:

We ask that you bring your vehicle into our testing facility where you will receive either a cash incentive for each day we keep your vehicle or a late model loaner car which will have a full tank of gas and unlimited mileage. This vehicle is yours to use without charge for the duration of the testing, which takes approximately three to four weeks. During this time, we will be performing a series of tests on your vehicle to measure vehicle emissions.

-at the time the vehicle is delivered to us for testing, you will be required to sign a form stating that the answers to the questions you will be asked are true and accurate to the best of your personal knowledge and belief.

We will provide you the following incentives for participating in our program:

-If your vehicle is accepted into the program, a full tank of gas and a cash incentive will be awarded. You will receive \$50 per day for each day your vehicle is at NVFEL, and the use of a fully-insured loan car; or \$75 per day for every day your vehicle is at NVFEL in lieu of a loan car. However, if your vehicle is rejected after you bring it to the lab, but before you leave, you will receive a \$20 payment.

The compensation will be based upon whole days, beginning with the day your car arrives. It will end one day after you are notified your vehicle is ready for return.

The maintenance performed on your vehicle will depend on program requirements. You will be given a list of any parts that are replaced.

Are you willing to participate? YES/ / NO/ /

If you are not, may we ask why not? _____

IF RESPONSE IS POSITIVE:

For the purpose of this study, I am going to ask you some questions about your vehicle's maintenance and usage history. You should answer these questions to the best of your knowledge and indicate when you are not sure of something.

FOR "MPF PERSONNEL" ONLY

SENTENCES IN CAPITAL LETTERS ARE INSTRUCTIONS TO THE CLERK
AND ARE NOT INTENDED TO BE READ TO THE OWNER.

- 1. a. What are the model year, transmission type, vehicle identification number and engine family of your vehicle? The engine family can be found on a Vehicle Emission Control Information decal located under the engine hood.**

The engine family should start with the letters 8 A D.

/ / Owner is unable to locate.

/ / Owner located. ENGINE FAMILY _____

/ / Engine family located when vehicle arrived at the Lab.

ENGINE FAMILY _____

ELIMINATE IF ENGINE FAMILY IS NOT 8AD XV03.1374

b. MODEL _____ VEHICLE ID NO. _____

MODEL YEAR _____

TRANSMISSION: AUTOMATIC / / AIR CONDITIONED: YES/ / NO/ /
MANUAL / / ODOMETER MILEAGE: _____

ELIMINATE IF MILEAGE IS UNKNOWN OR OVER 75,000 MILES.

VEHICLES WITH MILEAGE OVER 50,001 SHOULD BE ASSIGNED TO CLASS N002C

- c. Has the odometer ever not functioned properly?**

YES/ / NO/ /

If yes, approximately how long (months/miles) was it inoperable? _____

CONSULT EPA FOR ELIGIBILITY IF THE RESPONSE IS "YES"

- 2. a. When and where did you obtain your vehicle? When _____**
Where _____

- b. Was the vehicle utilized as a demonstrator prior to you purchase?**

YES/ / NO/ / DO NOT KNOW / /

IF THE ANSWER IS YES, ELIMINATE VEHICLE. CONSULT EPA IF DON'T KNOW

c. What was the mileage at the time of purchase or lease. _____

CONSULT EPA IF MILEAGE IS OVER 400.

d. Are you the original purchaser or lessee of the vehicle?

YES/ / NO/ /

IF OBTAINED NEW, GO TO NEXT NUMBERED QUESTION. IF OBTAINED USED FROM OWNER'S EMPLOYER OR IMMEDIATE FAMILY MEMBER, GO TO (e); OTHERWISE ELIMINATE.

e. Have you been the driver responsible for fueling, repairs and maintenance since the vehicle was new?

YES/ / NO/ /

IF NO, ELIMINATE.

3. Was the vehicle tested in a previous EPA or VW/AUDI emission program?
(REGULARLY REQUIRED STATE RUN EMISSIONS CHECKS ARE NOT INCLUDED)

YES/ / NO/ /

CONSULT EPA FOR ELIGIBILITY IF YES.

	YES	NO
4. Has your vehicle ever been used as a taxi?	_____	_____
5. Has your vehicle ever been used as a commercial delivery vehicle?	_____	_____
6. Has your vehicle ever been used to race in competitive speed events?	_____	_____
7. Have you ever used your vehicle in severe dust conditions?	_____	_____
8. Have you ever used your vehicle to plow snow?	_____	_____
9. Has the fuel pipe restrictor been modified or removed from your vehicle?	_____	_____

ELIMINATE IF ANY POSITIVE RESPONSE TO QUESTIONS 4 THROUGH 9.
(FOR TRUCKS ELIMINATE IF ANY POSITIVE RESPONSE TO 6 THRU 9)

10. Has the vehicle been equipped to permit trailer towing?

YES/ / NO/ /

If yes; how and by whom? _____

11. Has the vehicle been used to pull trailers?

YES/ / NO/ /

ELIMINATE IF RESPONSE IS "YES"

12. a. Is your vehicle equipped with air conditioning?

YES/ / NO/ / IF NO, GO TO 13.

b. Was the air conditioning unit on your vehicle:

1) Factory installed? / /

2) Dealership installed? / /

3) Nondealership installed? / /

4) Do not know? / /

CONSULT EPA IF RESPONSE IS 2), 3), OR 4).

13. Have any of the following special devices been installed on your vehicle other than standard parts made by VW/AUDI?

a. exhaust headers _____

b. camshaft _____

c. ignition equipment _____

d. carburetor or fuel injection components _____

e. modifications to computerized engine control _____

f. other (describe)

g. THIS ITEM IS FOR TRUCKS ONLY

Cap. toolbox, bedliner or other structure or device mounted in the truck bed.

(Describe including the device weight) _____

REMIND THE OWNER TO REMOVE LOOSE ITEMS FROM ALL COMPARTMENTS IN THE

TRUCK BED BEFORE BRINGING IT IN.

CONSULT EPA IF THERE IS A POSITIVE RESPONSE FOR ANY OF THE ABOVE ITEMS.

14. a. How many times per year do you drive on unpaved roads? _____

b. What percent of your mileage do you estimate you drive on unpaved roads? _____

ELIMINATE IF OVER 5%. (DELETE THIS QUESTION FOR TRUCK CLASSES)

15. Have you ever used any fuel other than that recommended by the manufacturer in your vehicle? (ex. leaded, E85)

YES / / NO / /

If Yes, what have you used? _____

How often have you used it? _____

When was the last time you used it? _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

16. Have there been any problems with the catalytic converter?

YES/ / NO/ / DON'T KNOW / /

If yes, describe _____

CONSULT EPA IF YES OR DON'T KNOW.

17. Have any settings been misadjusted or have the emission control system components been altered, modified or disconnected?

YES/ / NO/ /

If yes, explain what, when, and where.

WHAT _____

WHEN _____

WHERE _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

18. a. Has your vehicle ever overheated?

- 1) Never
- 2) One Time
- 3) More than One Time

ELIMINATE IF VEHICLE HAS OVERHEATED MORE THAN ONCE. IF VEHICLE HAS OVERHEATED ONCE, OBTAIN RESPONSES TO b,c AND d, THEN CONSULT EPA.

b. How did you know the vehicle overheated?

- 1) Temperature Gauge or Light
- 2) Steam From Under the Hood
- 3) Other _____

c. How far was the vehicle driven in an overheated condition?

- 1) Less than a mile
- 2) 1-3 miles
- 3) Greater than 3 miles

CONSULT EPA IF 1 OR 2; ELIMINATE IF 3.

d. When and where did vehicle overheat and what did you do?

19. a. Has your vehicle ever been involved in an accident?

YES/ / NO/ /

IF YES COMPLETE QUESTIONS (b), (c), (d), and (e).

b. As a result of an accident has your vehicle ever had damage in any of the following areas?

Yes No

- | | | |
|---|-------|-------|
| 1) Engine..... | _____ | _____ |
| 2) Cooling System..... | _____ | _____ |
| 3) Carburetor or Fuel Injection System..... | _____ | _____ |
| 4) Exhaust System..... | _____ | _____ |
| 5) Fuel Tank..... | _____ | _____ |
| 6) Ignition System..... | _____ | _____ |
| 7) Emission Control System..... | _____ | _____ |
| 8) Other (Specify)..... | _____ | _____ |

c. If “yes” for any of 1 to 8 describe the damage and the circumstances of the accident.

IF THERE WAS DEFINITE DAMAGE TO ANY OF THESE COMPONENTS OR IF THE OWNER IS UNSURE WHETHER THE ABOVE COMPONENTS WERE DAMAGED, CONSULT EPA.

d. Has the damage been repaired?

YES/ / NO/ /

e. If yes; what, when, by whom and at what cost?

What _____

When _____

Who _____ Cost _____

20. a. Has your “Check Engine” light (Malfunction Indicator Light) ever been on during vehicle operation at any time other than start up?

YES/ / NO/ / IF YES, GO TO b and c.

b. Describe the circumstances of each occurrence: _____

c. How many miles was the vehicle driven with the light on before repairs were made? (If more than one instance, list for each.)

ELIMINATE IF DRIVEN MORE THAN 1,000 MILES IN ANY ONE INSTANCE.

d. What was done to repair the vehicle after the light came on?

(IF MORE THAN ONE INSTANCE, LIST FOR EACH.) _____

IF REPAIRS WERE MADE WITHIN 1,000 MILES, CONSULT EPA FOR ELIGIBILITY.

21. a. When were the oil and oil filter first changed after obtaining the vehicle?

Date _____ Mileage _____

CONTACT EPA IF MORE THAN 10,500 MILES OR 13 MONTHS

b. When were the oil and oil filter changed the second time after obtaining the vehicle?

Date _____ Mileage _____

CONTACT EPA IF THE INTERVAL IS MORE THEN 11,500 MILES AFTER THE FIRST TIME.

c. IF OWNER HAS RECORDS SHOWING DATES AND MILEAGE OF OIL AND FILTER CHANGES, OBTAIN THE FOLLOWING INFORMATION:

How many oil and oil filter changes have you had?

(IF FILTER CHANGE WAS PERFORMED, INDICATE BY CHECK MARK IN PROVIDED SPACE).

DATE _____ OIL CHANGE / / DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / / MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

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DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

DATE _____ OIL CHANGE / /

DATE _____ OIL CHANGE / /

MILEAGE _____ OIL FILTER / /

MILEAGE _____ OIL FILTER / /

PERFORMED BY _____

PERFORMED BY _____

d. IF OWNER DOES NOT HAVE SERVICE RECORDS SHOWING DATES AND MILEAGE OF OIL AND FILTER CHANGES, BUT CHANGES ARE BASED ON TIME AND/OR MILEAGE INTERVALS, COMPLETE THE FOLLOWING:

- 1) At what interval is oil changed: time _____ miles _____
- 2) At what interval is filter changed; time _____ miles _____
- 3) Is oil / oil-filter changed in response to service-reminder lamp? _____
- 4) Who performs this work? _____

e. What is the longest period by months and mileage your vehicle has gone between oil changes? (SEE c.AND d. ABOVE TO VERIFY AND/OR CALCULATE THIS ANSWER.)

MONTHS _____ MILES _____
CONTACT EPA IF EITHER IS MORE THAN 11,500 MILES OR 14 MONTHS.

f. What is the longest period by months and mileage your vehicle has gone between oil filter changes?

(SEE c AND d ABOVE TO VERIFY AND/OR CALCULATE THIS ANSWER.)

MONTHS _____ MILES _____

CONTACT EPA IF EITHER MORE THAN 11,500 MILES OF 14 MONTHS**g. What was the approximate date of your last oil and oil filter change?**OIL CHANGE: DATE _____ MILEAGE _____

PERFORMED BY _____

OIL FILTER CHANGE: DATE _____ MILEAGE _____

PERFORMED BY _____

22. a. IF OWNER ALSO HAS RECORDS SHOWING DATES AND MILEAGE OF TUNE-UPS, OBTAIN THE FOLLOWING INFORMATION.

How many times has your vehicle received a routine tune-up maintenance such as: ignition (or spark) timing adjustment, fuel system adjustment and spark plug replacement? If possible, please state what was performed during the tune-up.

DATE _____ / / IGNITION TIMING / / FUEL SYSTEM* ADJUSTMENT

MILEAGE _____ / / SPARK PLUG REPLACEMENT

PERFORMED BY _____

DATE _____ / / IGNITION TIMING / / FUEL SYSTEM* ADJUSTMENT

MILEAGE _____ / / SPARK PLUG REPLACEMENT

PERFORMED BY _____

*Carburetor or Fuel Injection System

CONTACT EPA IF SPARK PLUG CHANGE INTERVAL WAS EVER GREATER THAN 40,600 MILES.**b. IF OWNER DOES NOT HAVE RECORDS OF TUNE-UPS, BUT TUNE-UPS ARE PERFORMED BASED ON TIME/MILEAGE INTERVALS, COMPLETE THE FOLLOWING:**

- 1) At what interval is tune-up maintenance performed?

Months _____ Miles _____

- 2) What is the longest interval between spark plug changes?

Months _____ Miles _____

- 3) Who performs this work? _____

CONTACT EPA IF SPARK PLUG CHANGE INTERVAL WAS EVER GREATER THAN 40,600 MILES.

c. What other scheduled maintenance has been performed?

Description _____

Date _____ Mileage _____

Performed by _____

Description _____

Date _____ Mileage _____

Performed by _____

Description _____

Date _____ Mileage _____

Performed by _____

d. What is the largest amount of money you have ever spent for maintenance or repairs to your car?

_____ dollars _____ don't know

WHAT _____

WHY _____

WHEN _____

WHERE _____

23. a. Has any unscheduled maintenance (i.e., maintenance to correct a problem) been performed on your vehicle in the following areas?

	<u>YES</u>	<u>NO</u>
Engine	_____	_____
Fuel injection	_____	_____
Transmission, drive shaft, axle	_____	_____
Exhaust system	_____	_____
Ignition system/Electrical system	_____	_____
Cooling system	_____	_____
Fuel tank	_____	_____
Emission control system	_____	_____
Oxygen Sensor	_____	_____
Computerized engine system	_____	_____
Other	_____	_____

b. If the answer to any of the above items is yes, please describe what, why, when, and where.

WHAT _____

WHY _____

WHEN _____

WHERE _____

WHAT _____

WHY _____

WHEN _____

WHERE _____

WHAT _____

WHY _____

WHEN _____

WHERE _____

CONSULT EPA FOR ELIGIBILITY IF QUESTION (b) IS ANSWERED

**24. a. Have you had any performance or drivability problems with your vehicle?
(Including problems described in question 23.)**

YES / / NO / /

IF NO, GO TO NEXT NUMBERED QUESTION.

If yes, describe: _____
_____**b. Would the problems you described fall into any of the following categories?**

	<u>Never</u>	<u>Occasionally</u>	<u>Frequently</u>
1) Hard Starting	_____	_____	_____
2) Poor Cold Performance	_____	_____	_____
3) Poor Acceleration	_____	_____	_____
4) Hesitation	_____	_____	_____
5) Stalling	_____	_____	_____
6) Dieseling (after run)	_____	_____	_____
7) Back firing	_____	_____	_____
8) Stumbling	_____	_____	_____
9) Engine Knock	_____	_____	_____
10) Rough Idle	_____	_____	_____
11) Engine Misfiring	_____	_____	_____
12) Other	_____	_____	_____

Describe other problems? _____

c. What was done to eliminate performance problems(s)?

WHAT _____

WHEN _____

WHERE _____

WHAT _____

WHEN _____

WHERE _____

d. When did the problems you mentioned above occur?

- 1) When you first obtained the vehicle?
- 2) With normal use, but prior to any maintenance performed on your vehicle?
- 3) After maintenance by _____

e. How long did each problem exist? _____**f. Do you still experience performance problems?**

YES / / NO / /

Describe the problem _____

g. Would you say the general performance of your vehicle is:

- / / 1) Better than when you obtained it?
- / / 2) Worse than when you obtained it?
- / / 3) About the same as when you obtained it?

h. What percent of your driving is done:

In the city (stop and go driving)? _____ %

On the Highway? _____ %

CONSULT EPA FOR ELIGIBILITY IF QUESTION (c) IS ANSWERED

25. Have you ever operated your car so as to cause it to idle for extended periods of time (i.e., for more than 15 minutes)?

NO / / YES / / APPROX. NO OF TIMES _____

IF NO, GO TO NEXT NUMBERED QUESTION.

Describe the circumstances for each case: _____

IF YES, CONSULT EPA FOR ELIGIBILITY.

26. Have you ever used synthetic oil in your vehicle's engine?

NO / / YES / / DON'T KNOW / /

If Yes, how many times?_____, what brand? _____

27. Have you ever received notice that your vehicle was involved in a recall campaign?

NO / / YES / /, approximate date _____

28. a. Describe the recall or give the recall number _____

b. Did you take your vehicle to a dealership for the recall repair?

YES / / NO / /

29. a. Are the original tires, which were on the vehicle when it was first purchased, still on the vehicle?

YES / / NO / / IF YES SKIP TO 29b.

IF NO, are any original tires still on the vehicle now?

YES / / NO / / IF NO, SKIP TO 29b.

Where are the remaining original tires positioned on the vehicle now? (i.e., left-front, right-rear, etc.) _____

What is the date of the most recent tire replacement? _____
IF WITHIN 60 DAYS, CHECK WITH EPA REP.

b. What are the make (i.e. Goodyear), model (i.e. Arriva), size (i.e. P185/70R14). Construction (i.e. Radial or Bias), and tread type (i.e. All Season) of each of the vehicle's tires.

	Make	Model	Size	Construction	Tread Type
Left front	_____	_____	_____	_____	_____

N001c/N002c

2008 VW/Audi

EF#8AD XV03.1374

Control No.N001c/N002cRXXC_____

Right front

Left rear

Right rear

30. Are the original rims, which were on the vehicle when first purchased, still on the vehicle?

YES / / NO / / CONSULT EPA IF NO.

If NO, explain _____

31. Have these tires ever been repaired? (e.g. flat tire repaired with a plug or a foam product, etc.)

YES / / NO / / DON'T KNOW / /

IF YES, DESCRIBE _____

CONSULT EPA IF YES OR DON'T KNOW.

32. a) Have you kept records of the maintenance and repairs performed on your vehicle?

YES / / NO / /

b) To prepare for testing, the glove box and trunk will need to be opened during by URS and EPA personnel. Frequently, records pertaining to the vehicle's maintenance history are found in the vehicle. Will you allow all records (those provided by you and those found) to be reviewed and duplicated?

YES / / NO / /

33. EPA needs to share your maintenance records with the manufacturer to correctly test the vehicle. Do you agree to this?

YES / / NO / /

IF RECORDS ARE AVAILABLE, INFORM OWNER THAT: It is important that they are brought to the lab for review and duplication.

INFORM THE OWNER THAT:

All valuables should be removed from the vehicle (including those in the glove box) prior to bringing the vehicle to the lab.

ALSO INFORM THE OWNER THAT: Due to the location of some systems, the glove box and trunk may need to be opened during maintenance by EPA and/or EPA contractors. Any records pertaining the vehicle's maintenance history found in the vehicle may need to be copied.

34. Has your vehicle received body or glass repair, or been partially or totally repainted?

_____ **Yes** _____ **No**

If yes: what, when, by whom and cost.

WHAT

WHEN

BY WHOM _____ COST _____

ACCEPT WHATEVER THE ANSWER.

35. Has your vehicle ever been equipped with rustproofing or undercoating?

 Yes No don't know If "yes", when and by whom.

ACCEPT WHATEVER THE ANSWER IS

COMMENTS: _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

VIN _____

State of _____ County of _____

I, _____,

being first duly sworn, depose and say:

I am the owner () and/or joint owner () and/or principal driver () of the vehicle described in this questionnaire and have personal knowledge of all matters discussed herein. I have read the responses to the questions stated above, and such responses are true and accurate to the best of my knowledge and belief.

(Signature)_____
(Date)

Subscribed and affirmed before me, a Notary Public, and I hereby certify that I am duly authorized by the laws of the State of Michigan, County of Washtenaw, to administer oaths.

(Seal)

Notary Public_____
(Date)

My commission expires: _____
(Date)

QUALIFICATION OF MAINTENANCE INFORMATION

Please check one of the following if the candidate owner is not the original owner of vehicle

_____.

_____ No, the present owner is not the original owner of the vehicle, but does have knowledge of its maintenance history. The answers on the telephone questionnaire are complete and accurate for the entire maintenance history of the vehicle. The reason for the owner's knowledge of the vehicle's history before its purchase has been noted below.

_____ No, the present owner is not the original owner and does not know the complete maintenance history of the vehicle. The answers to the telephone questionnaire are complete and accurate for the period after the purchase at _____ miles. Oil, filter and spark plug change intervals reported are those known to have occurred after that mileage. Events that occurred prior to that mileage are not included.

N001c/N002c

2008 VW/Audi

EF#8AD XV03.1374

Control No.N001c/N002cRXXC_____

The present mileage on this vehicle is approximately _____.

Signature of Procurement Clerk

IN-USE TESTING
MAINTENANCE BEFORE FTP

VEHICLE CONTROL # _____ VIN _____

VEHICLE MODEL _____ ENGINE FAMILY _____

ENGINE CODE/CALIBRATION _____ TRANSMISSION _____
(Speeds if-M/T)

ODOMETER _____ EVAP FAMILY _____

DATE _____ TIME _____ FUEL TYPE _____

NOTE: If any of the following items are not applicable to the vehicle being inspected, mark N/A.

1. Record the following information:

- a. Vehicle build date _____
- b. Actual tire sizes Left Front _____ Right Front _____
Left Rear _____ Right Rear _____
- c. GWR _____ Front _____ Rear _____ e. COLOR: Exterior _____
- d. Recall campaign sticker / / YES / / NO Interior _____
- Recall campaign number from sticker _____
- None found _____

2. Inspect the fuel filler neck for the presence of, and/or damage to the unleaded fuel restrictor. Use leaded nozzle to determine if restrictor is operational.

_____ ok
_____ damaged, describe _____
_____ not present

REJECT IF RESTRICTOR IS DAMAGED OR LEADED NOZZLE FITS INTO FUEL FILLER NECK

3. Remove a sample of fuel from the tank and deliver to chem. lab for analysis. _____

4. Determine the axle ratio; make 10 wheel revolutions (applicable to rear-drive only).

(no. of driveshaft revolutions X2) = _____ X 2 = _____

(no. of wheel revolutions) 10

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

5.

Check brakes for excessive drag. Adjust if necessary.

_____ brake drag ok

_____ excessive brake drag (adjusted)

6. Inspect catalyst body, if so equipped, for discoloration, signs of damage, bulges, burn-out or evidence of plug removal.

_____ catalyst ok

other (describe) _____

7. Record the following part numbers.

Catalyst _____ PROM _____

TPS Sensor _____ PCV valve _____

Throttle body _____ ECM (computer) _____

O2 Sensor _____ EGR valve _____

8. a. Record trouble codes MIL or pending codes in vehicle's computer system at beginning of EPA maintenance: _____

b. Readiness Tests

Catalyst _____ Evap System _____

Secondary Air _____ O2 Sensor _____

O2 Sensor Heater _____ EGR system _____

c. At the time during the maintenance, is the MIL on?

9. a. Check cooling system, both radiator and reservoir (if applicable) for coolant and fill if necessary.

Reservoir

_____ level ok

_____ level low _____ coolant added _____ (amount)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

Radiator

_____ level ok
_____ level low _____ coolant added _____ (amount)

b. Check coolant condition, replace if poor.

_____ coolant condition ok
_____ coolant condition poor, (specify) _____
_____ coolant replaced

c. Perform the following pressure checks:

Radiator cap pressure check; pressure applied: (need pressure) bar

_____ no leakage
_____ cap leaks
_____ cap does not release pressure
_____ cap replaced

Radiator pressure check; pressure applied: (need pressure) bar

_____ no leakage
_____ hoses and clamps ok
_____ radiator leaks
_____ leakage repaired

d. freeze protection level _____

TBD spec = -### degrees at ###% mixture adjusted to _____

10. Check drive belts. Replace if cracked, frayed, glazed or excessively worn. Adjust if loose

_____ belt (s) ok
_____ belt (s) adjusted or replaced, specify

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

11. Visually inspect battery for electrolyte level. If level is low add distilled water.

_____ level ok _____ level low _____ Water added

/ / Maintenance free battery (if equipped with an indicator, record observation).

12. Check the power steering fluid and add if necessary.

_____ not applicable _____ level low
_____ level ok _____ fluid added _____ (amount)

13. Visually inspect the vehicle for:

- a. Signs of obvious tampering.

_____ none found _____ yes
Describe _____

- b. Fuel system plug (s). Plug location: _____

_____ all present and intact

_____ plug (s) missing; Describe _____

14. Check all fuel system linkages for free operation. (throttle linkages.)

_____ Free operation

_____ Sticking, binding, etc.; describe _____

_____ Repaired, describe _____

15. Check the condition of the hoses of the following systems for cuts, cracks, or hardening. Check for correct routing of hoses. Check function where indicated, repair if appropriate.

- a. Air cleaner hoses.

_____ correctly routed, ok condition

_____ air cleaner door functional

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

b. Spark timing control hoses.

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

c. Crankcase emission control hoses.

_____ correctly routed, ok condition

_____ air moves through PCV system

_____ not ok, specify _____

_____ repaired or replaced, describe _____

d. EGR system hoses.

_____ correctly routed, ok condition

rpm required for movement _____ rpm

_____ not ok, specify _____

_____ repaired or replace, describe _____

e. Evaporative emission system hoses.

_____ correctly routed, ok condition, vent and purge functions OK

_____ no ok, specify _____

_____ repaired or replaced, describe _____

f. Air injection system hoses.

_____ not applicable

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

g. Speed control system.

/ / O.E. system / / non-O.E. system / / not applicable

For O.E. system:

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

For non-O.E. system:

/ / System disconnected at throttle

h. List problems found with any other vacuum hoses.

_____ no other problems found

_____ problems found, specify _____

Action taken _____

16. Start engine Time _____

Engine warm Time _____

(Vehicles equipped with an electric cooling fan should be run until fan operates)

Electric cooling fan operates YES / / NO / / Not equipped / /
with an electric cooling fan

If NO, describe _____

17. Check the automatic transmission fluid level and add if necessary.

_____ not applicable

_____ level low

_____ level ok

_____ fluid added

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

18. Check electrical wiring for proper connections and integrity of wires (idle solenoid, ignition and spark control, engine temperature switches, sensors, etc.).

_____ wiring ok
 _____ not ok, specify _____
 _____ repaired or replaced, describe _____

19. Exhaust System

- a. _____ Drain holes plugged in exhaust system
 _____ Not applicable
- b. Check exhaust system for leaks with engine running.
 _____ No leaks
 _____ System leaks; location _____
 _____ Leaks repaired; describe _____

20. a. Remove all spark plugs. See emission label to determine if plug is O.E. Record the information for the plug(s) removed.

Specified O.E. make and number _____

Specified gap _____

b. Check compression

Compression Spec. please provide _____

(Always use a fully charged battery to obtain engine speed of 250 rpm or more)

Cylinder No.	Brand	Part No.	Gap	Condition	Compression
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

If actual plugs are non-O.E., are they equivalent to O.E.?

_____ yes _____ no _____ Unknown _____ Not Applicable

Replace ALL plugs with O.E. plugs.

List brand and type of new plugs installed: _____

21. Check valve clearances (if applicable) and adjust if necessary. See VECI label (ONLY IF RECORDS SHOW THAT ROCKER ARM OR LIFTERS HAVE BEEN REMOVED OR REPLACED)

	Spec:		Spec:
Intake	_____	(Other)	_____
Exhaust	_____		

	1	2	3	4	5	6	7	8
As Received:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____
Set to:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____

22. Check the following to determine whether they are non-O.E. parts and their condition. Replace any found to be excessively worn, or dirty, or fouled, or if parts are not equivalent to O.E. Also, replace parts for which removal necessitates replacement.

	O.E.	NON.-O.E.	NOT APPL.	CONDITION	MAINTENANCE
a. air filter	_____	_____	_____	_____	_____

NOTE: Manufacturer recommended air cleaner filter is: _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC	MANUFACTURER REPRESENTATIVE	EPA REPRESENTATIVE
----------	-----------------------------	--------------------

b. oil filter _____

c. fuel filter _____

d. ignition wires _____

e. distributor cap _____

f. distributor rotor _____

g. PCV valve _____

h. PCV filter _____

i. air conditioner _____

j. fuel filler cap _____

k. List below any other non-O.E. parts found in the visual check and their condition and maintenance _____ None Non-O.E. _____

NOTE: Manufacturer recommended air cleaner filter is: What is the recommended air cleaner?

23. a. Check oil level.

_____ oil level ok _____ oil level below 1/2 qt.

b. Replace oil and filter as recommended by manufacturer:

#W## GF# oil; engine oil filter: _____

_____ oil and oil filter replaced

24. For LDTs only (#24 and #25)

Do only if the truck has over _____ miles or is over _____ months old.

Is the EGR maintenance light on? Yes _____ No _____

If the EGR light is on and the maintenance has not been performed previously by the owner (from the owner's records), perform the following :

25. Verify if O2 maintenance has been performed (from owner's records)

Yes _____ No _____
ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ MANUFACTURER REPRESENTATIVE _____ EPA REPRESENTATIVE _____

If yes, when? _____

If O2 maintenance has not been performed, perform the following:

Additional maintenance items to be performed:

26. Start engine Time _____

Engine warm Time _____

27. Preparation for parameter set.

_____ engine at normal operating temperature

_____ accessory equipment off

PERFORM THE FOLLOWING CHECKS AND ADJUSTMENTS ACCORDING TO THE PROCEDURES AND INSTRUCTIONS SPECIFIED ON THE EMISSION LABEL AND/OR THE SHOP MANUAL.

28. Check idle ignition timing and adjust if necessary.

gear setting _____

as received _____ at _____ rpm

spec.* _____ at _____ rpm

set to _____ at _____ rpm

*See VECI label and/or shop manual.

29. Check and adjust, if necessary, the idle speed(s) settings.

Idle speed adjustment plugs present / /yes / / no / / N/A

If idle is out of spec. see VECI label and/or shop manual.

a. Curb idle speed

gear setting _____ observed _____ rpm

spec.* _____ rpm set to _____ rpm

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

*See VECI label and/or shop manual

b. TPS output voltage. (Curb idle speed)

observed _____ vdc

Spec. _____

30. List any comments relevant to the inspection performed on this vehicle:

31. Record Trouble Codes (after M-2)

32. Attach any special procedures to this form.

Special procedures attached? Y / N

Time completed _____

Date _____

Signature of mechanic and observers:

MECHANIC _____

EPA REPRESENTATIVE _____

MANUFACTURER REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

Comments:

[illegible]

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Wed 9/22/2010 1:35:11 PM
Subject: RE: EPA's Confirmatory Maintenance Form
[N001 maintenance before FTP.doc](#)
[FilterReplaceProc.pdf](#)
[FluidCapacity.pdf](#)
[OilFilterAssem.pdf](#)
[OilLevelCheck.pdf](#)

Hello Lynn,

Attached you will find your questionnaire with my added details.
Further I have attached a description for the oil change, specifications for the oil and coolant and how to change the filter.

Let me know if you have any questions on this or need something additionally.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, September 22, 2010 8:26 AM
To: Berenz, Sebastian
Subject: Fw: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

I will need the information for the maintenance very soon. Also, I need to know what the maintenance schedule says regarding oil changes. Do you have a copy of the page from the owner's manual that you

can send me?

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 09/22/2010 08:24 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
Date: 08/25/2010 04:20 PM
Subject: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

Attached is the form that we use during maintenances for vehicles in a confirmatory class. There are a few items that I need you to provide.
I've indicated those things in red. Please fill in the blanks and return the file to me. Please also let me know if you have any questions.

In case you are interested in seeing the telephone questionnaire, I've attached that as well.

Thanks,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

(See attached file: N001c-002c TELEPHONE QUESTIONNAIRE.doc)(See attached file: N001 maintenance before FTP.doc)

IN-USE TESTING
MAINTENANCE BEFORE FTP

VEHICLE CONTROL # _____ VIN _____

VEHICLE MODEL _____ ENGINE FAMILY _____

ENGINE CODE/CALIBRATION _____ TRANSMISSION _____
(Speeds if-M/T)

ODOMETER _____ EVAP FAMILY _____

DATE _____ TIME _____ FUEL TYPE _____

NOTE: If any of the following items are not applicable to the vehicle being inspected, mark N/A.

1. Record the following information:

- a. Vehicle build date _____
- b. Actual tire sizes Left Front _____ Right Front _____
Left Rear _____ Right Rear _____
- c. GWR _____ Front _____ Rear _____ e. COLOR: Exterior _____
- d. Recall campaign sticker / / YES / / NO Interior _____
- Recall campaign number from sticker _____
- None found _____

2. Inspect the fuel filler neck for the presence of, and/or damage to the unleaded fuel restrictor. Use leaded nozzle to determine if restrictor is operational.

_____ ok
_____ damaged, describe _____
_____ not present

REJECT IF RESTRICTOR IS DAMAGED OR LEADED NOZZLE FITS INTO FUEL FILLER NECK

3. Remove a sample of fuel from the tank and deliver to chem. lab for analysis. _____

4. Determine the axle ratio; make 10 wheel revolutions (applicable to rear-drive only).

(no. of driveshaft revolutions X2) = _____ X 2 = _____

(no. of wheel revolutions) 10

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

5.

Check brakes for excessive drag. Adjust if necessary.

_____ brake drag ok

_____ excessive brake drag (adjusted)

6. Inspect catalyst body, if so equipped, for discoloration, signs of damage, bulges, burn-out or evidence of plug removal.

_____ catalyst ok

other (describe) _____

7. Record the following part numbers.

Catalyst _____ PROM _____

TPS Sensor _____ PCV valve _____

Throttle body _____ ECM (computer) _____

O2 Sensor _____ EGR valve _____

8. a. Record trouble codes MIL or pending codes in vehicle's computer system at beginning of EPA maintenance: _____

b. Readiness Tests

Catalyst _____ Evap System _____

Secondary Air _____ O2 Sensor _____

O2 Sensor Heater _____ EGR system _____

c. At the time during the maintenance, is the MIL on?

9. a. Check cooling system, both radiator and reservoir (if applicable) for coolant and fill if necessary.

Reservoir

_____ level ok

_____ level low _____ coolant added _____ (amount)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

Radiator

_____ level ok
_____ level low _____ coolant added _____ (amount)

b. Check coolant condition, replace if poor.

_____ coolant condition ok
_____ coolant condition poor, (specify) _____
_____ coolant replaced

c. Perform the following pressure checks:

Radiator cap pressure check; pressure applied: (need pressure) bar

VW: **1.4... 1.6 bar**
 20.3...23.2 psi

_____ no leakage
_____ cap leaks
_____ cap does not release pressure
_____ cap replaced

Radiator pressure check; pressure applied: (need pressure) bar

VW: **1.0 bar**
 14.5 psi

_____ no leakage
_____ hoses and clamps ok
_____ radiator leaks
_____ leakage repaired

d. freeze protection level _____

TBD spec = -## degrees at ##% mixture adjusted to _____

VW:

**Coolant (40 %) and water (60 %) for temperature down to -25 °C / -
13F.**

**Coolant (50 %) and water (50 %) for temperature down to -35 °C / -
31F.**

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

Coolant (60 %) and water (40 %) for temperature down to -40 °C/ -40F.

10. Check drive belts. Replace if cracked, frayed, glazed or excessively worn. Adjust if loose

_____ belt (s) ok

_____ belt (s) adjusted or replaced, specify

11. Visually inspect battery for electrolyte level. If level is low add distilled water.

_____ level ok _____ level low _____ Water added

/ / Maintenance free battery (if equipped with an indicator, record observation).

12. Check the power steering fluid and add if necessary.

_____ not applicable

_____ level low

_____ level ok

_____ fluid added _____ (amount)

13. Visually inspect the vehicle for:

- a. Signs of obvious tampering.

_____ none found

_____ yes

Describe _____

- b. Fuel system plug (s). Plug location: _____

_____ all present and intact

_____ plug (s) missing; Describe _____

14. Check all fuel system linkages for free operation. (throttle linkages.)

_____ Free operation

_____ Sticking, binding, etc.; describe

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

____ Repaired, describe _____

15. Check the condition of the hoses of the following systems for cuts, cracks, or hardening. Check for correct routing of hoses. Check function where indicated, repair if appropriate.

a. Air cleaner hoses.

_____ correctly routed, ok condition

_____ air cleaner door functional

_____ not ok, specify _____

_____ repaired or replaced, describe _____

b. Spark timing control hoses.

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

c. Crankcase emission control hoses.

_____ correctly routed, ok condition

_____ air moves through PCV system

_____ not ok, specify _____

_____ repaired or replaced, describe _____

d. EGR system hoses.

_____ correctly routed, ok condition

rpm required for movement _____ rpm

_____ not ok, specify _____

_____ repaired or replace, describe _____

e. Evaporative emission system hoses.

_____ correctly routed, ok condition, vent and purge functions OK

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

_____ no ok, specify _____

_____ repaired or replaced, describe _____

f. Air injection system hoses.

_____ not applicable

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

g. Speed control system.

/ / O.E. system / / non-O.E. system / / not applicable

For O.E. system:

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

For non-O.E. system:

/ / System disconnected at throttle

h. List problems found with any other vacuum hoses.

_____ no other problems found

_____ problems found, specify _____

Action taken _____

16. Start engine Time _____

Engine warm Time _____

(Vehicles equipped with an electric cooling fan should be run until fan operates)

Electric cooling fan operates YES / / NO / / Not equipped / /
with an electric cooling fan

If NO, describe _____

17. Check the automatic transmission fluid level and add if necessary.

_____ not applicable _____ level low

_____ level ok _____ fluid added

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

18. Check electrical wiring for proper connections and integrity of wires (idle solenoid, ignition and spark control, engine temperature switches, sensors, etc.).

_____ wiring ok
 _____ not ok, specify _____
 _____ repaired or replaced, describe _____

19. Exhaust System

- a. _____ Drain holes plugged in exhaust system
 _____ Not applicable
- b. Check exhaust system for leaks with engine running.
 _____ No leaks
 _____ System leaks; location _____
 _____ Leaks repaired; describe _____

20. a. Remove all spark plugs. See emission label to determine if plug is O.E. Record the information for the plug(s) removed.

Specified O.E. make and number _____

Specified gap _____

b. Check compression

Compression Spec. please provide _____

(Always use a fully charged battery to obtain engine speed of 250 rpm or more)

VW: new 11.0... 14.0 bar
min. 10 bar
difference between cylinder max. 3.0 bar

Cylinder No.	Brand	Part No.	Gap	Condition	Compression
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

9 of 14 2008 Audi A4 and A6 8ADXV03.1374 Confirmatory Class #:N001c/N002cRXX-____
 4 _____
 5 _____
 6 _____

If actual plugs are non-O.E., are they equivalent to O.E.?

_____ yes _____ no _____ Unknown _____ Not Applicable

Replace ALL plugs with O.E. plugs.

List brand and type of new plugs installed: _____

21. Check valve clearances (if applicable) and adjust if necessary. See VECI label (ONLY IF RECORDS SHOW THAT ROCKER ARM OR LIFTERS HAVE BEEN REMOVED OR REPLACED)

Spec: Spec:
 Intake _____
 (Other) _____
 Exhaust _____

	1	2	3	4	5	6	7	8
As Received:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____
Set to:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____

22. Check the following to determine whether they are non-O.E. parts and their condition. Replace any found to be excessively worn, or dirty, or fouled, or if parts are not equivalent to O.E. Also, replace parts for which removal necessitates replacement.

O.E. NON.-O.E. NOT APPL. CONDITION MAINTENANCE
 ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ MANUFACTURER REPRESENTATIVE _____ EPA REPRESENTATIVE _____

a. air filter _____

NOTE: Manufacturer recommended air cleaner filter is: _____

b. oil filter _____

c. fuel filter _____

d. ignition wires _____

e. distributor cap _____

f. distributor rotor _____

g. PCV valve _____

h. PCV filter _____

i. air conditioner _____

j. fuel filler cap _____

k. List below any other non-O.E. parts found in the visual check and their condition and maintenance _____ None Non-O.E. _____

NOTE: Manufacturer recommended air cleaner filter is: What is the recommended air cleaner?

VW:

for AUDI A6: 4F0 133 843

For AUDI A4: 06C 133 843

23. a. Check oil level.

_____ oil level ok

_____ oil level below ½ qt.

b. Replace oil and filter as recommended by manufacturer:

#W## GF# oil; engine oil filter: _____

VW:

VW 50200 oil

5W40

5W30

0W40

_____ oil and oil filter replaced

24. For LDTs only (#24 and #25)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

Do only if the truck has over _____ miles or is over _____ months old.

Is the EGR maintenance light on? Yes _____ No _____

If the EGR light is on and the maintenance has not been performed previously by the owner (from the owner's records), perform the following :

25. Verify if O2 maintenance has been performed (from owner's records)

Yes _____ No _____

If yes, when? _____

If O2 maintenance has not been performed, perform the following:

Additional maintenance items to be performed:

26. Start engine Time _____

Engine warm Time _____

27. Preparation for parameter set.

_____ engine at normal operating temperature

_____ accessory equipment off

PERFORM THE FOLLOWING CHECKS AND ADJUSTMENTS ACCORDING TO THE PROCEDURES AND INSTRUCTIONS SPECIFIED ON THE EMISSION LABEL AND/OR THE SHOP MANUAL.

28. Check idle ignition timing and adjust if necessary.

gear setting _____

as received _____ at _____ rpm

spec.* _____ at _____ rpm

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

set to _____ at _____ rpm
*See VECI label and/or shop manual.

29. Check and adjust, if necessary, the idle speed(s) settings.

Idle speed adjustment plugs present / /yes / / no / / N/A

If idle is out of spec. see VECI label and/or shop manual.

- a. Curb idle speed

gear setting _____ observed _____ rpm

spec.* _____ rpm set to _____ rpm

*See VECI label and/or shop manual

- b. TPS output voltage. (Curb idle speed)

observed _____ vdc

Spec. _____

30. List any comments relevant to the inspection performed on this vehicle:

31. Record Trouble Codes (after M-2)

32. Attach any special procedures to this form.

Special procedures attached? Y / N

Time completed _____

Date _____

Signature of mechanic and observers:

MECHANIC _____

EPA REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

MANUFACTURER REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

_____/_____/_____
MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

[illegible]

MECHANIC	MANUFACTURER REPRESENTATIVE	EPA REPRESENTATIVE
----------	-----------------------------	--------------------

Engine Oil, Draining and Replacing Oil Filter



WARNING

Oil extraction not permitted with various engine types!



Note

Perform oil change at operating temperature.

Special tools and workshop equipment required

Oil Extractor 1782

Tension Band 2171

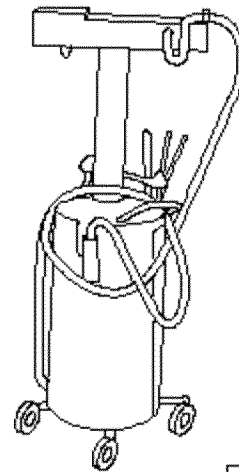
Oil Filter Key 3417

Oil Drain Adapter T 40057 (2.0 TFSI)



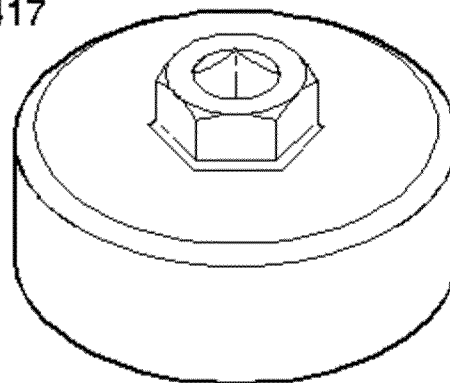
Note

V.A.G 1782



W00-10211

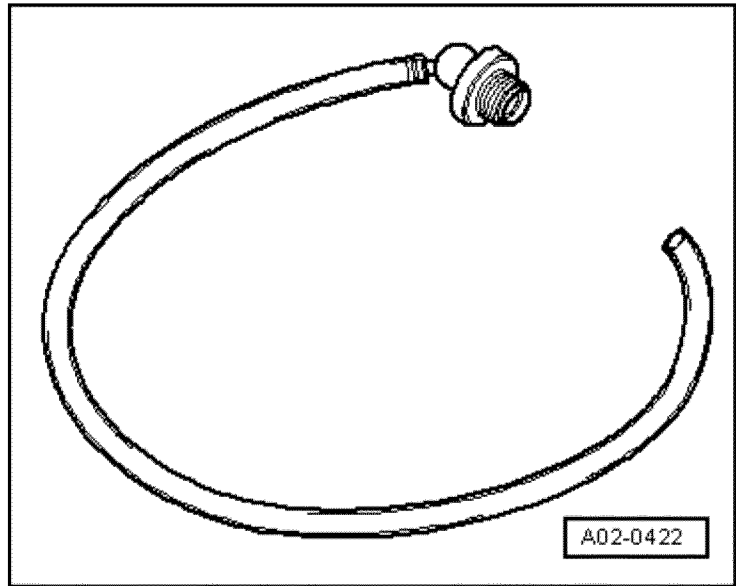
3417



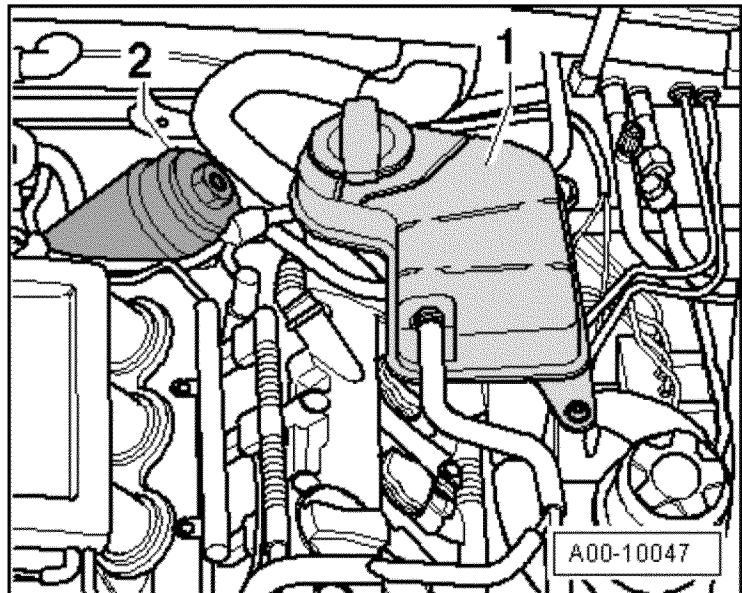
W00-0408

Observe waste disposal regulations!

V6 3.0L TFSI and 3.2L FSI

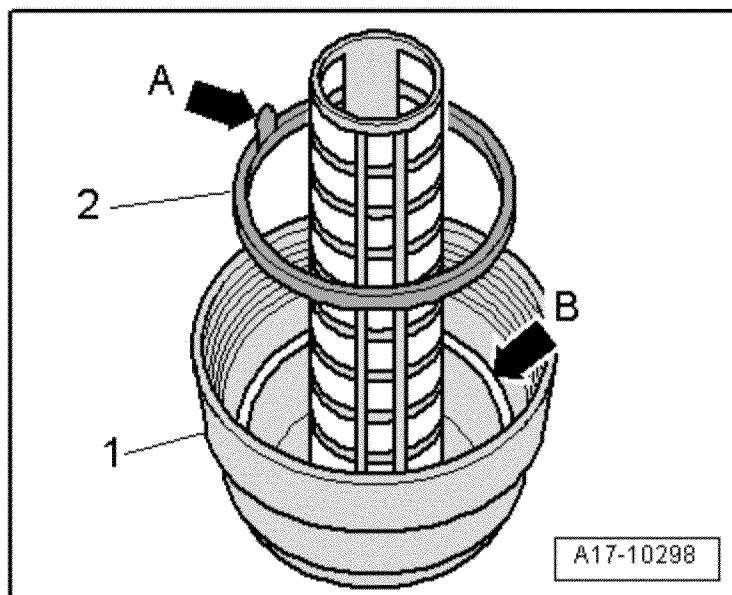


- Remove coolant reservoir 1 and lay aside.
- Remove oil filter cover with [SW 3622]
- Clean sealing surfaces oil filter cover and at oil filter housing.
- Replace oil filter insert.



Sealing ring on cap, replacing

- Remove sealing ring at pull tab 1 arrow A from cap 1.
- Insert new sealing ring 2 with semicircular profile in groove 1 arrow B on cap.
- 1 The pull tab 1 arrow A must face upward.
- 1 Smooth side of sealing ring 2 must face toward outside



O-ring, inserting in oil filter housing

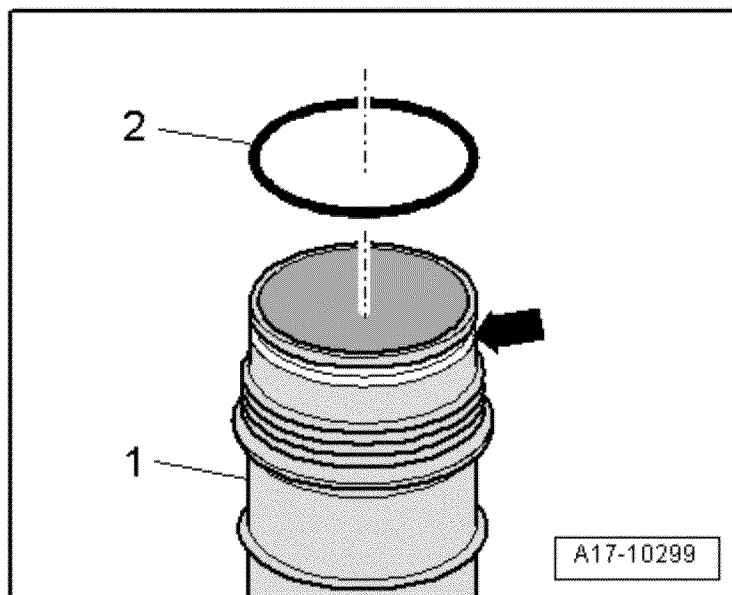
- Insert O-ring (2) in groove (arrow B) on oil filter housing (1).



Note

Observe waste disposal regulations!

- Engage new oil filter insert in oil filter cover.
- Install oil filter cover (3).
- Install coolant reservoir.
- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug on oil pan or extract engine oil.
- Install oil drain plug.



Note

Oil drain plug is installed without seal.

Check for cleanliness.

Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug on oil pan	30

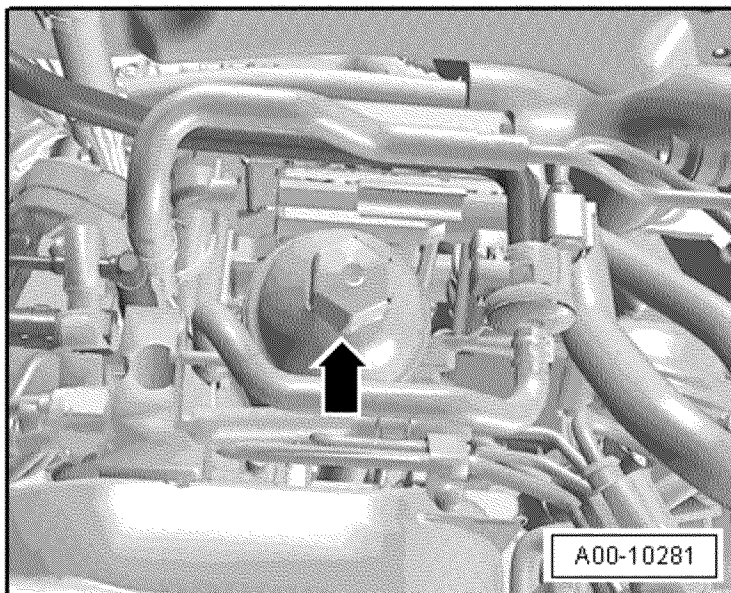
- Fill motor oil. Refer to → Chapter „Engine Oil, Filling“

For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;

V8 BVJ

- Remove the oil filter cover with a Socket Wrench $\text{SW } 32 \rightarrow$
- Clean sealing surfaces oil filter cover and at oil filter housing.



- Replace O-rings 2 and 4 and filter component 3



Note

By removing the filter element, a valve is opened that allows the oil in the filter housing to flow automatically back into the crankcase.

Observe installation position of tab on oil filter.

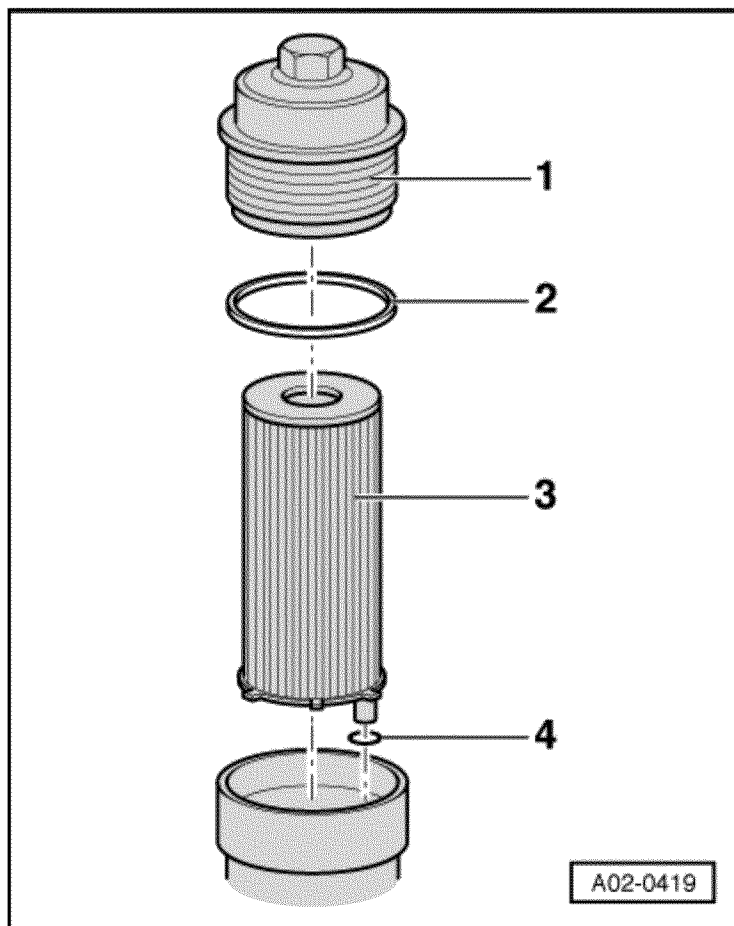
Observe waste disposal regulations!

- Insert new oil filter in filter housing
- Install new O-ring 2 and lubricate lightly.
- Install oil filter cover 1
- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug on oil pan or extract engine oil.
- Install oil drain plug.



Note

Install oil drain plug with new gasket.



Check for cleanliness.



Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug on oil pan	25

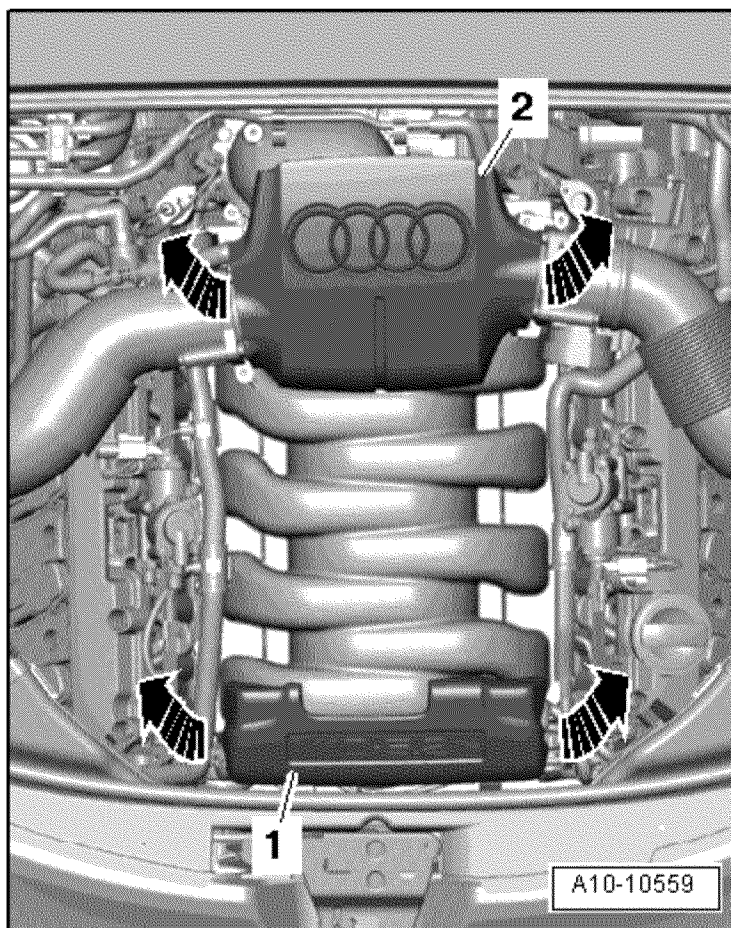
- Fill motor oil. Refer to → Chapter „Engine Oil, Filling“.

For oil specifications and capacities, refer to

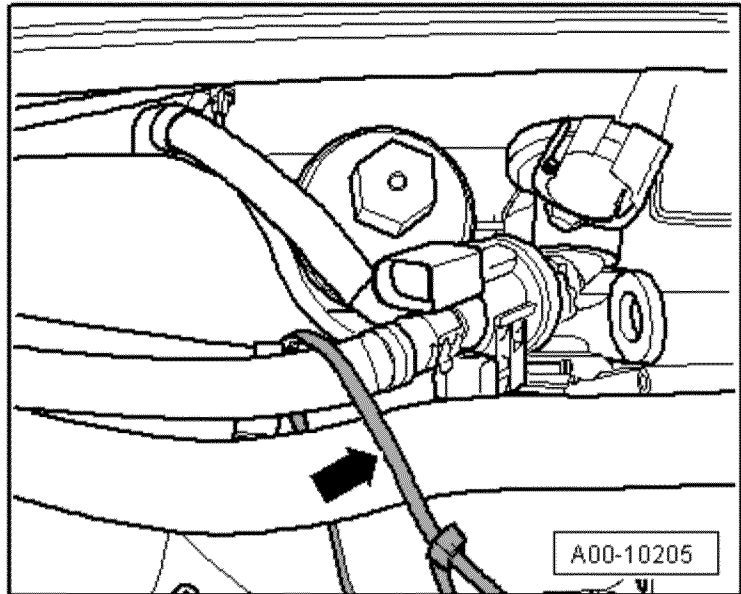
→ Fluid Capacity Tables; Rep. Gr.03;

5.2L FSI

- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug and drain engine oil.
- Install oil drain plug with new gasket.
- Remove rear engine cover  arrows 
- Remove EVAP valve from bracket and lay aside.



- Secure EVAP line, permanent ventilation line and sound pipe line at front with cable ties.



- Loosen cover 1 AF 32.
- Remove filter component 3
- Replace O-rings 2 and 4 and filter element 3

Observe installation position of tab on oil filter.

- Fill with engine oil.

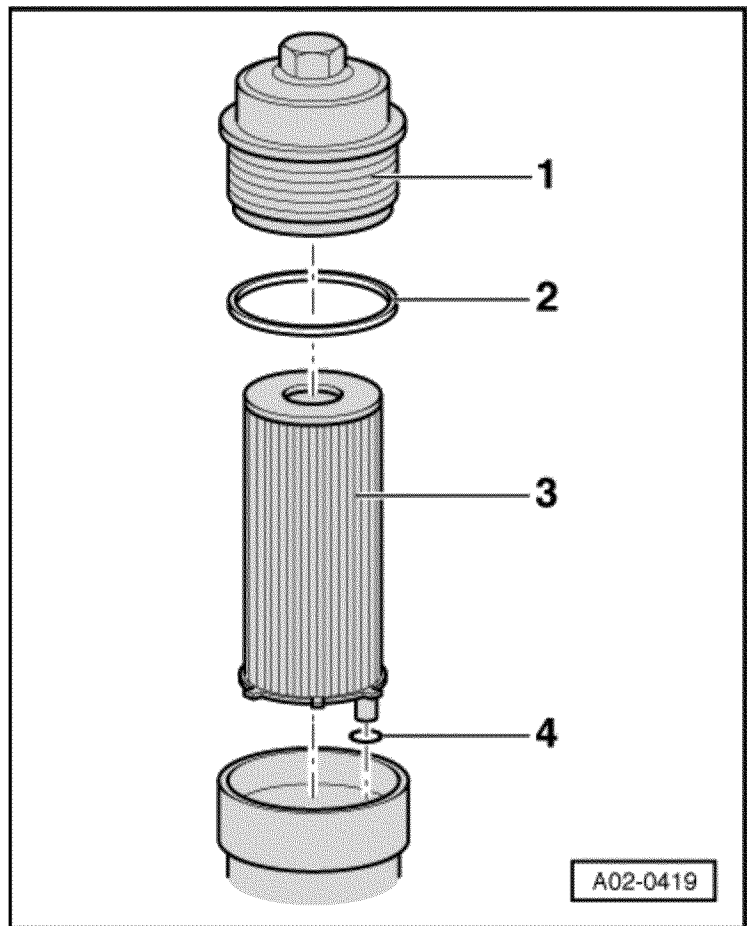
For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;



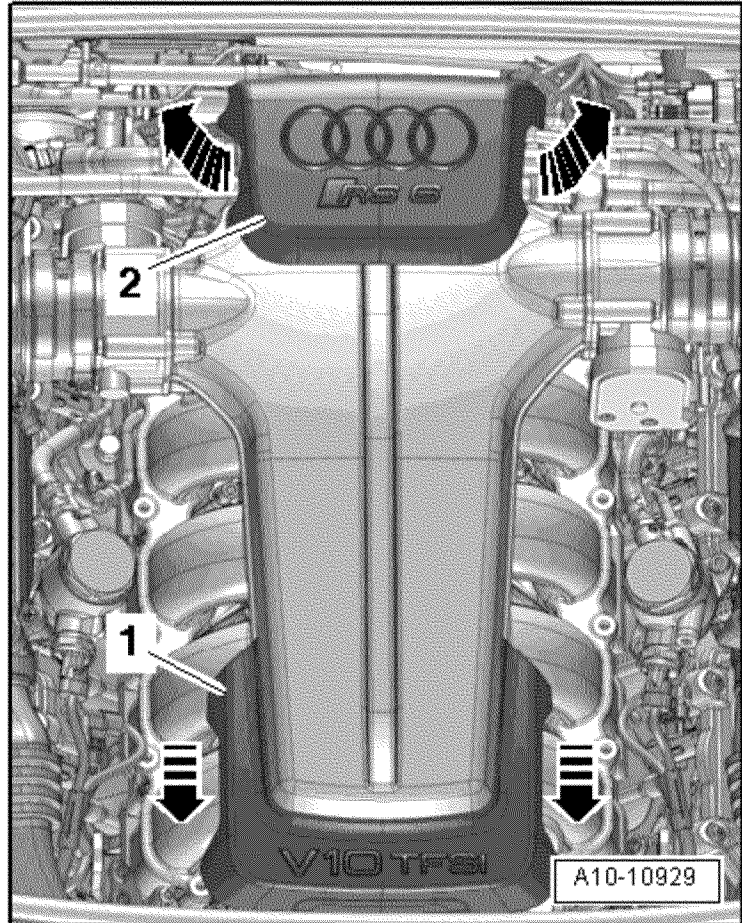
Note

Observe waste disposal regulations!



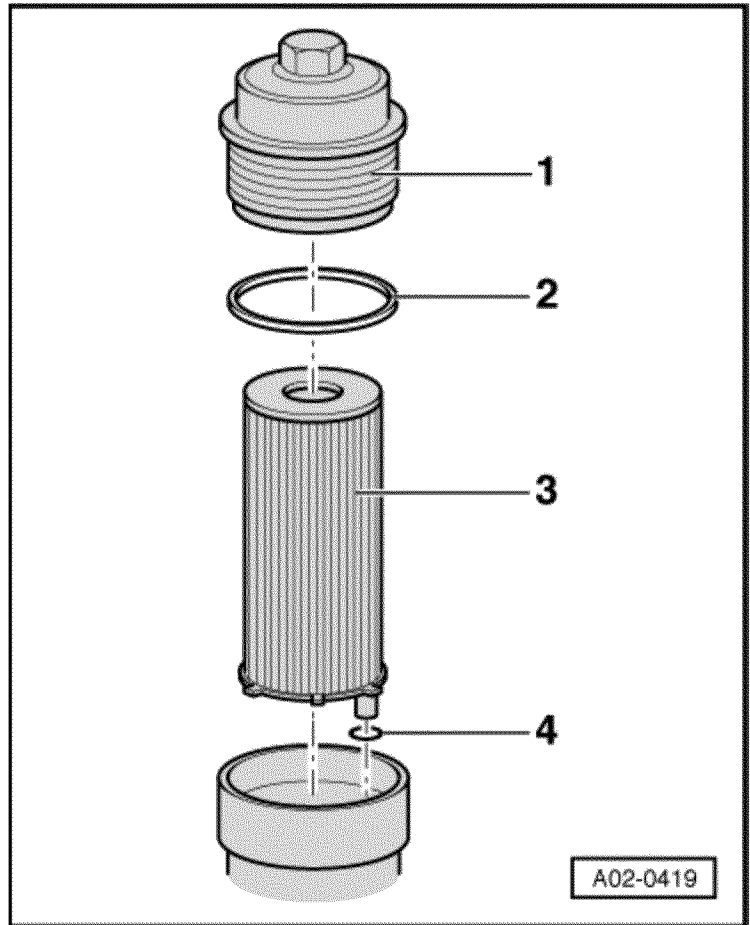
Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug	25

V10 TFSI, RS 6

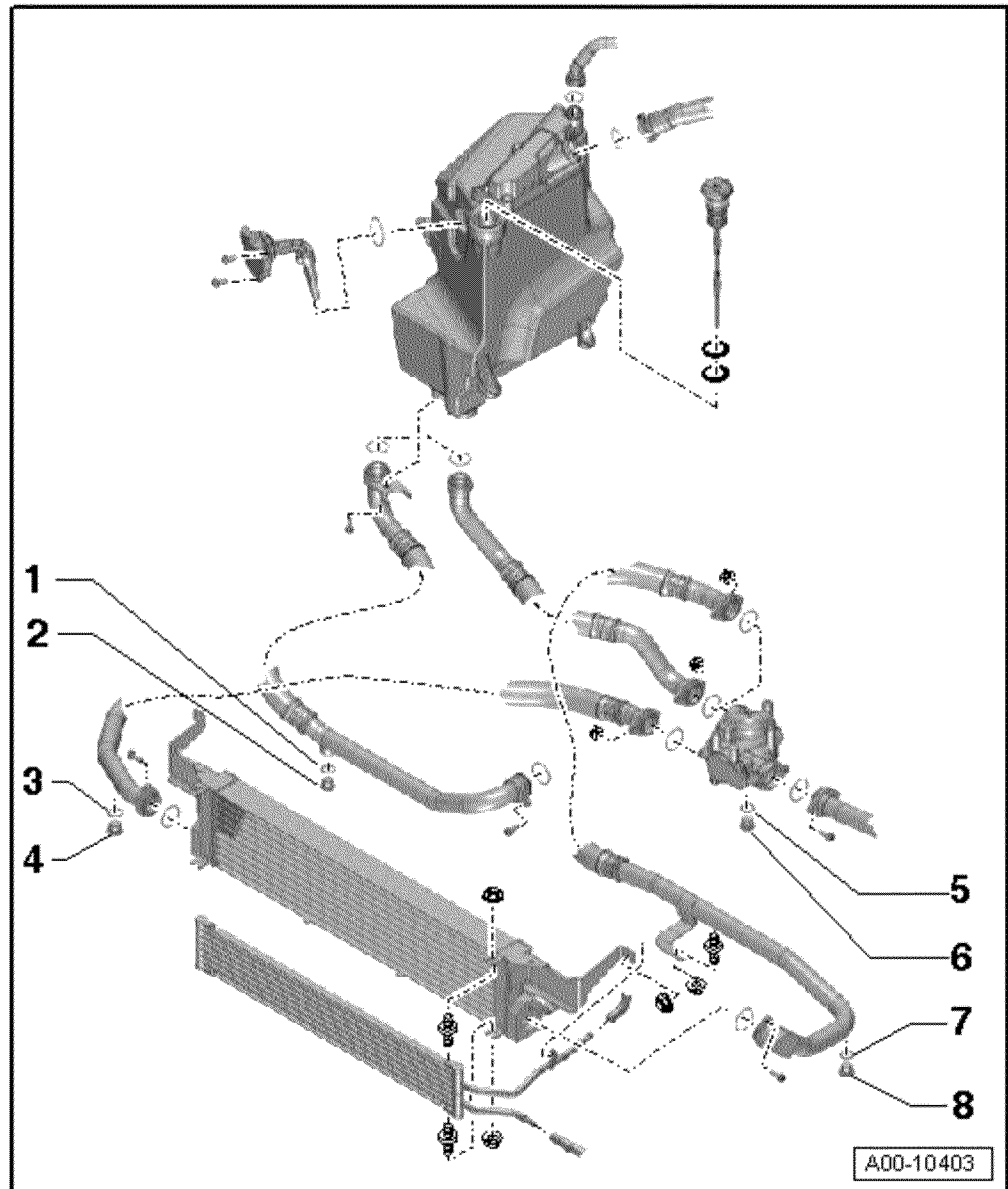



- Remove rear engine cover **2** toward the rear **arrows**.
- Free up the oil filter housing cover **1**.
- Loosen cover **1** **AF 32**.
- Remove filter component **3**.
- Replace O-rings **2** and **4** and filter element **3**.

Observe installation position of tab on oil filter.



- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“



- Open the oil drain plugs 2, 4, 6 and 8 and drain the oil.
- Open oil drain plug  and drain engine oil.
- Install the oil drain plug with a new gasket.
- Remove any remaining oil the oil pan using an oil extractor 1782.

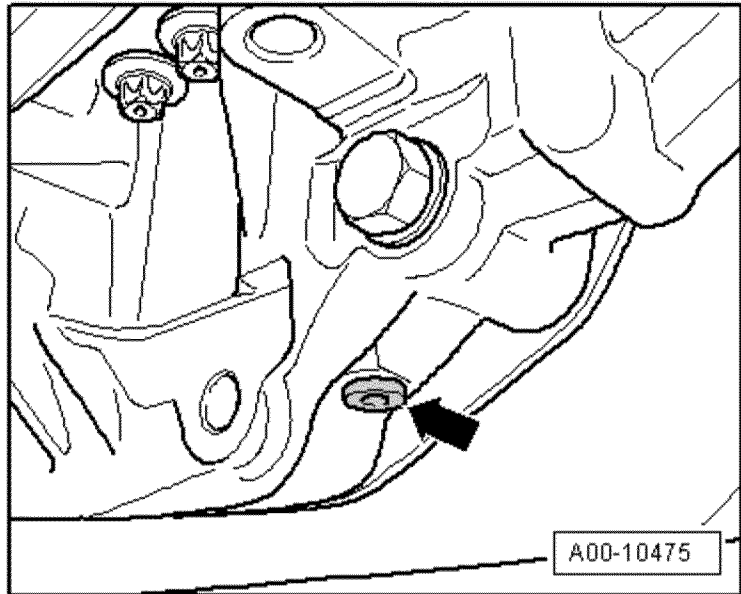

Note

The number of oil drain plugs will vary between 2 (only on the oil pipes) and 5 depending on the vehicle and engine versions.

**WARNING**

Pay attention to the tightening specifications.

Always pay attention to the instructions when filling the engine oil. Refer to → Chapter „Engine Oil Filling, RS 6“.



Tightening Specifications	Nm
Oil filter cover	25
Thermostat housing drain plug	25
Drain plugs on the oil tubes	40
Drain plug on the control housing	12 +/-0.5

- Fill the engine oil. Refer to → Chapter „Engine Oil Filling, RS 6“

For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;

**Note**

Observe waste disposal regulations!

Audi A6/S6



Caution

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

Refer to Technical Bulletin 2010043 for engine oils meeting the required Audi oil quality standards.

Part numbers are for reference only. Always check with your parts department for the latest information.

Component/System		Capacity	Part Number/Specification
3.2 L Engine			
	Oil and Filter Change	6.5 L (6.9 qt.)	VW 502 00
	Coolant	9.6 L (10.1 qt.)	G 012 A8G
4.2 L Engine			
	Oil and Filter Change	9.1 L (9.6 qt.)	VW 502 00
	Coolant	12.0 L (12.7 qt.)	G 012 A8G
5.2 L Engine			
	Oil and Filter Change	10.0 L (10.6 qt.)	VW 502 00
	Coolant	15.0 L (16.0 qt.)	G 012 A8G
Continuously Variable Transmission 01J			
	Initial Fill	7.5 L (7.9 qt.)	G 052 180 A2
	Refill	4.5 - 5.0 L (4.8 - 5.3 qt.)	
	Front Final Drive	1.3 L (1.4 qt.)	G 052 190 A2
6 Speed Automatic Transmission 09L			
	Initial Fill	9.8 L (10.3 qt.)	G 060 162 A2
	Refill	8.0 L (8.5 qt.)	

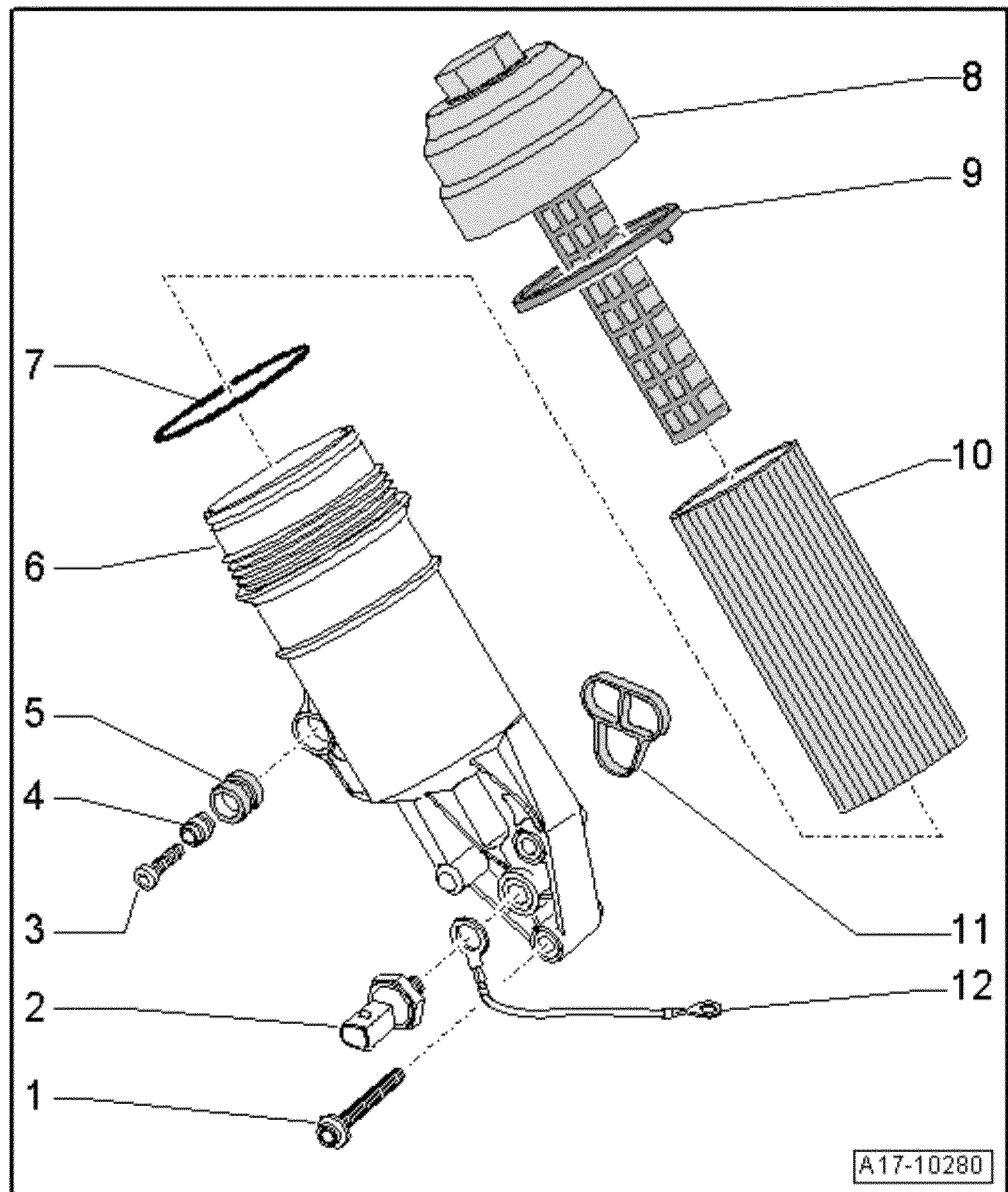
	Front Final Drive	1.1 L (1.2 qt.)	G 052 145 S2
	Transfer Case	0.6 L (0.6 qt.)	G 055 145 A2
	Rear Final Drive - 0AR	0.9 L (1.0 qt.)	G 052 145 S2
	Rear Final Drive - 01R	1.5 L (1.6 qt.)	
6 Speed Automatic Transmission 09E			
	Initial Fill	10.4 L (11.0 qt.)	G 055 005 A2
	Refill	10.0 L (10.6 qt.)	
	Front Final Drive	1.1 L (1.2 qt.)	G 055 145 S2
	Transfer Case	1.2 L (1.3 qt.)	
	Rear Final Drive - 0AR	0.9 L (1.0 qt.)	
	Rear Final Drive - 01R	1.5 L (1.6 qt.)	
Brake System			
	-	1.0 L (1.1 qt.)	G 000 750
A/C System			
	Refrigerant	530 ± 20 g (18.7 ± 0.7 oz.)	See ETKA
	PAG Oil	130 ± 10 cc (4.4 ± 0.3 fl. oz.)	G 052 300 A2
Window/Headlamp Washer System			
	-	4.8 L (5.1 qt.)	G 052 164

edition-061110

Oil Filter Housing Assembly Overview

Vehicles through 04.2005

- 1 - 13 Nm
- 2 - Oil pressure switch - F1-



Black insulation
checking → Chapter „Oil Pressure, Checking“
Removing and installing → Chapter
Tighten to 20 Nm.

- 3 - 13 Nm
- 4 - Sleeve
- 5 - Rubber grommet
- 6 - Oil filter housing

with filter bypass valve 3.0 bar
 with oil check valve
 Oil check valve cannot be replaced
 Removing and installing → Chapter

7 - O-ring

Replace
 inserting → Fig.

8 - Cover - 25 Nm

9 - Seal

Replace
 Removing and installing → Fig.

10 - Oil filter element

Removing and installing

→ Booklet405

11 - Gasket

Replace

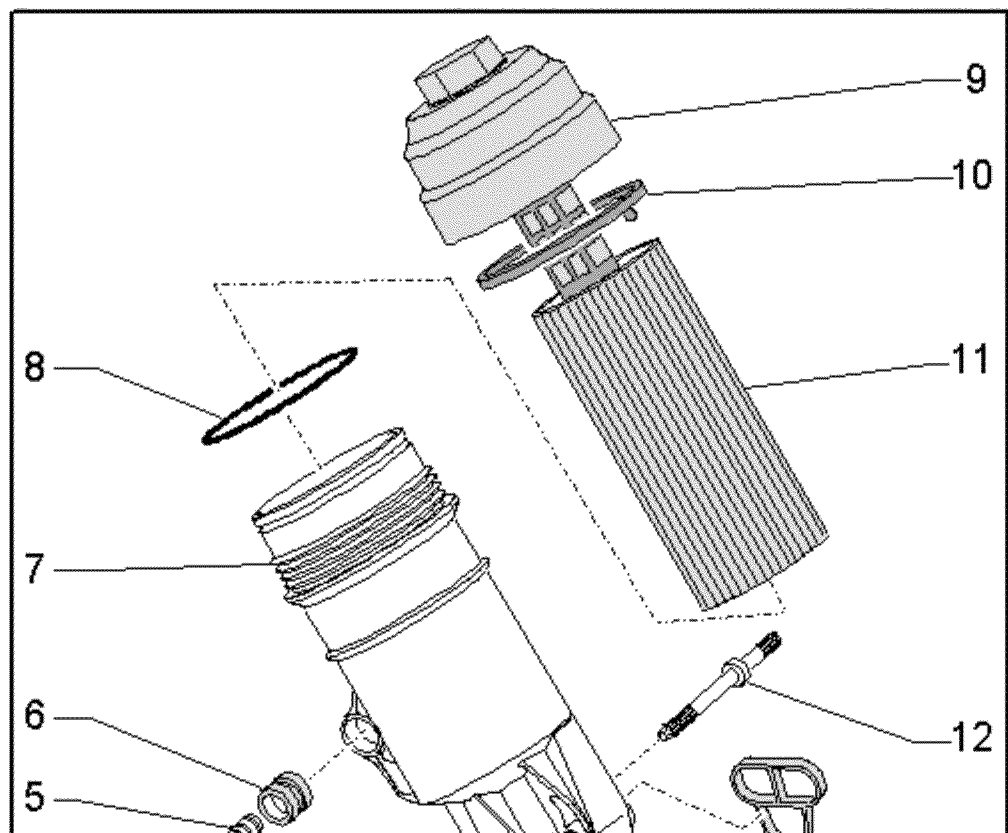
12 - Seal with ground (GND) wire

Replace

Vehicles from 05.2005

1 - 13 Nm

2 - Oil
 pressure
 switch -
 F1-



Tighten to 20 Nm.

Black insulation

Removing and installing, refer to → Chapter „Oil Pressure Switch“

Checking → Chapter „Oil Pressure, Checking“

3 - Multi-point socket head union nut - 13 Nm

4 - 13 Nm

5 - Sleeve

6 - Rubber grommet

7 - Oil filter housing

With filter by&pass valve 3.0 bar

With oil check valve

Oil check valve cannot be replaced

8 - O-ring

Replace

Inserting, refer to → Fig. „O&ring, Inserting on Oil Filter Housing“

9 - Cover - 25 Nm

10 - Seal

Replace

Removing and installing, refer to → Fig. „Sealing Ring on Cap, Replacing“

11 - Oil filter element

Removing and installing, refer to

→ Booklet405

12 - Stud bolt - 16 Nm

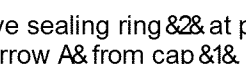
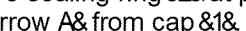
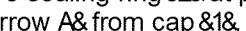
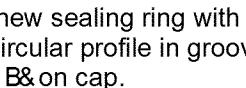
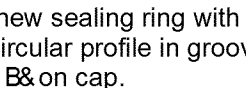
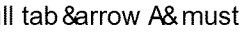
13 - Gasket

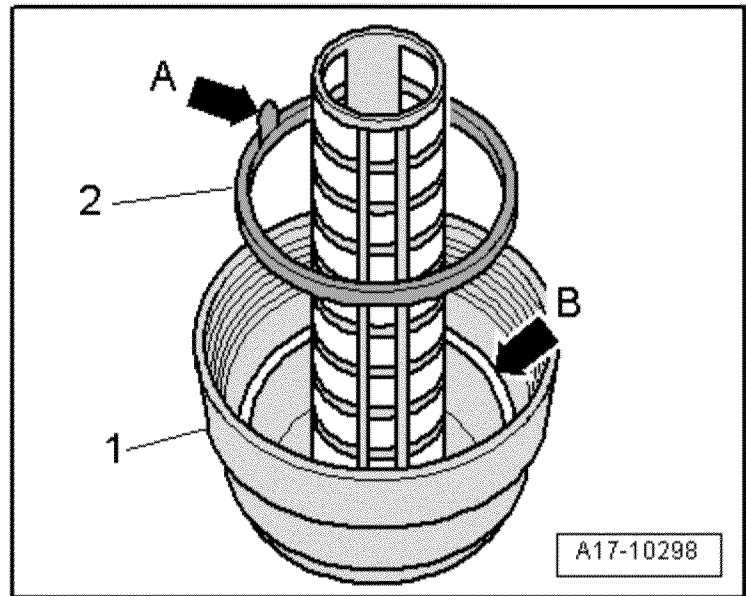
Replace

14 - Seal with Ground (GND) wire

Replace

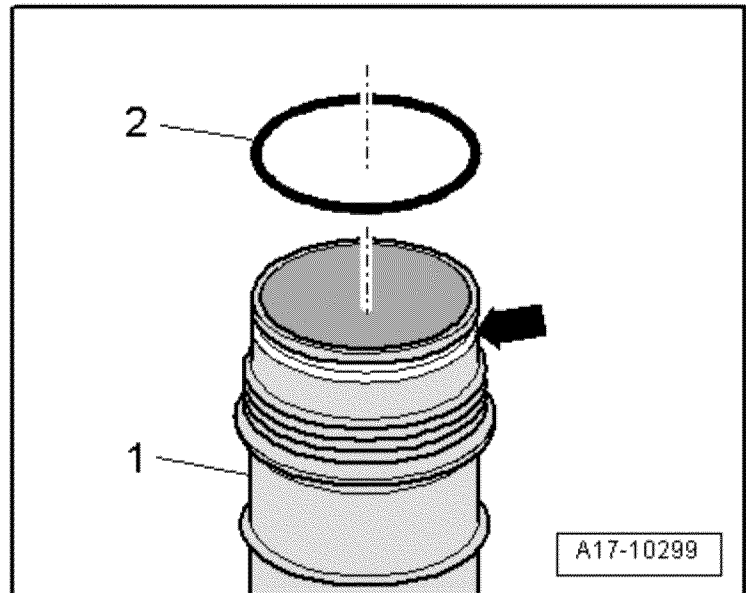
Sealing Ring on Cap, Replacing

- Remove sealing ring  at pull tab  from cap .
- Insert new sealing ring with semicircular profile in groove  arrow B  on cap.
- 1 The pull tab  must face up.



O-ring, Inserting on Oil Filter Housing

- Insert O-ring (2) in groove (A) on oil filter housing (1).



Engine, Checking Oil Level

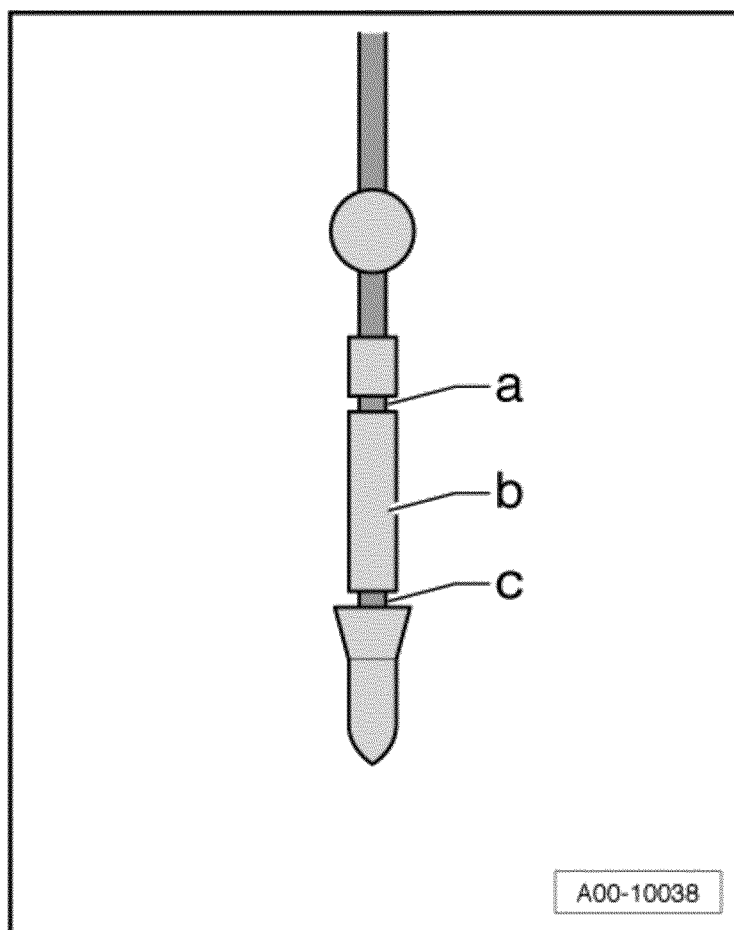
**NOTE**

Minimum engine oil temperature 140°F (60°C).

Vehicle must be in level position.

After stopping engine, wait a few minutes to allow oil to flow back into oil pan.

- Pull out oil dipstick and wipe with clean rag. Replace dipstick and push down to stop.
- Pull out dipstick again and read oil level.

Markings on dipstick:

- a - Oil must not be topped off.
- b - Oil can be topped off. This will cause the oil level to be in area -a-.
- c - Oil must be topped off. It is sufficient when oil level is in area -b- (grooved field).

**NOTE**

Oil level must not exceed -a- mark on dipstick.

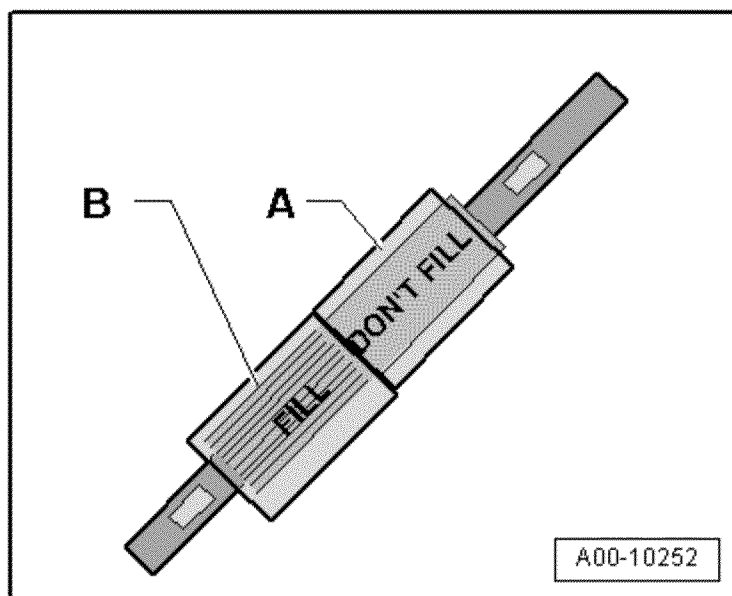
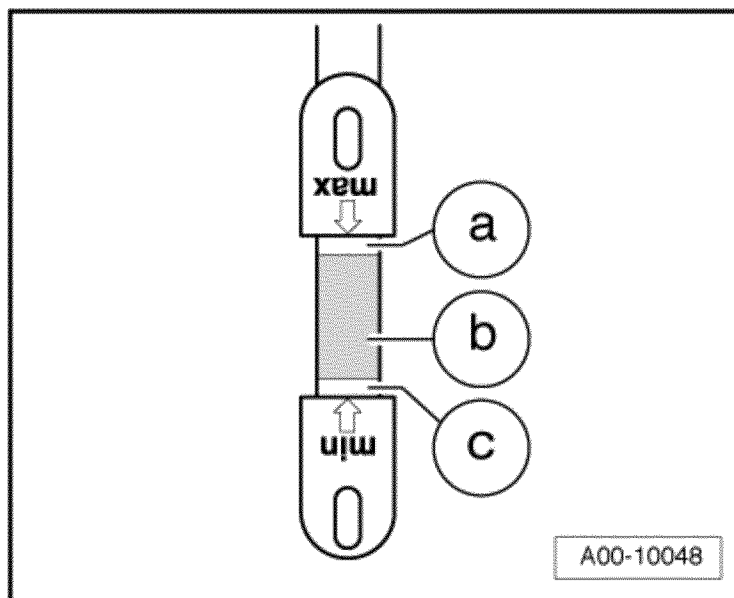
Checking Engine Oil Level, RS 6

- Follow these steps in sequential order.
- 1 Place the vehicle in a horizontal position.
- 1 Let the engine warm at different RPMs less than 2,500 RPM until the engine oil reaches a temperature of approximately 212 to 230 °F (100 to 110 °C) according to the instrument cluster. Refer to Owners Manual.
- 1 Let the engine run in idle for 3 minutes.
- 1 Switch off the engine and let the oil drain down for two minutes; then check the oil level within 10 minutes.
- 1 Add engine oil if necessary.
- 1 Oil level in the "B" range - add oil.
- 1 Filling capacity approximately 1 liter
- 1 The oil level can be within the "A" range.



NOTE

Add oil until the oil level is 5 mm below the upper edge of the "Do not Fill" range.



To: Sohacki.Lynn@epamail.epa.gov[Sohacki.Lynn@epamail.epa.gov]
From: "Berenz, Sebastian"
Sent: Wed 9/22/2010 2:19:42 PM
Subject: maintenance guide
[2008 AU Maintenance Cards.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Attached you will find the missing maintenance card which shows when a oil change is needed.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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2008 Scheduled Maintenance Intervals

Miles (in thousands)	5/25/45/65/85/105	15/55/95	35/75
Kilometers (in thousands)	8/40/70/100/130/160	25/85/145	55/115

Engine Oil – change oil and replace filter			
Wiper Blades – check condition and replace if necessary			
Wiper/Washer/Headlight Washer – check adjustment and function, add fluid if necessary			
Tires and Spare – check for wear and damage, check pressure – check for wear and damage, check pressure and renewal date of tire set (where applicable)			
Tires – rotate	5K only		
Service Reminder Display – reset			
Brake System – check for damage, leaks, pad thickness, fluid level			
Cooling System – check level, add if necessary			
Exhaust System – check for damage, leaks			
Engine On-Board Diagnostics – check fault memory		Except Audi Q7, TT, A5, S5 and R8	Except Audi Q7, TT, A5, S5 and R8
Engine Compartment – check for leaks			
Battery – check and replace if necessary			
Dust and Pollen Filter – replace			
Automatic Transmission and Final Drive – check for leaks			
Manual Transmission and Final Drive – check for leaks			
Haldex Clutch – change oil			A3 and TT only
Front Axle – check for excessive play, check dust seals on ball joints and tie rod ends		Except Audi Q7, TT, A5, S5 and R8	
Lights – check all lights, check headlight adjustment		A8 and S8 only	Except Audi Q7, TT, R8, A5 and S5
Drive Shaft Boots – check			
Front Sunroof Drains (where applicable) – open sunroof to check front water drain and clean if necessary (U.S. only)			
Plenum Panel – remove cover to plenum panel to check water drains and clean if necessary (U.S. only)			A4, A4 Avant, A4 Cabriolet, S4, S4 Avant, S4 Cabriolet, RS4, RS4 Cabriolet, A6, A6 Avant, S6, A8 and S8 only
Doors – lubricate doors, check straps and hood latch		A8 and S8 only	
Spark Plugs – replace at 35,000 miles or 3 years, whichever occurs first. Then, every 40,000 miles or 3 years, whichever occurs first. – replace at 55,000 miles or 6 years, whichever occurs first. Then, every 60,000 miles or 6 years, whichever occurs first. – replace at 75,000 miles		Except A3 3.2L, TT 3.2L and A8 6.0L	35K only: A3 3.2L, TT 3.2L and A8 6.0L 75K only: A3 3.2L, TT 3.2L and A8 6.0L
Continuously Variable Transmission (multitronic) – change ATF			
Power Steering Fluid – check, add if necessary			
Air Cleaner – clean housing, replace filter element		55K only: except RS4, Audi Q7 4.2L and A8 6.0L	35K only: RS4, A8 6.0L; 75K only: RS4, Audi Q7 4.2L and A8 6.0L
Ribbed V Belt and Tensioner – check condition and replace if necessary		RS4 and R8 only	RS4, Audi Q7 3.6L, A8 6.0L and R8 only
Ribbed V Belt – replace – check condition and replace if necessary. Check tension of belt drive with manual tensioner and retension if necessary.			75K only: S4 75K only: 2.0L, 3.2L, 4.2L FSI and 5.2L
Snow Screen for Air Cleaner – clean		A4, A5, S5 and A6 only	A4, A5, S5 and A6 only
Underbody – check for damage and leaks			
Road Test – check braking, kick-down, steering, electrical, heating and ventilation systems, air conditioning, ASL Automatic Shift Lock and power accessories			
Rear Lid Hinges – lubricate		A8 and S8 only	A8 and S8 only
Horn – check function			
Brake Discs – check thickness			
Lights – check all lights via instrument cluster. Check license plate light from the rear of the vehicle			Audi Q7, TT, A5, S5 and R8 only
Interior Lights – check all interior lights, glove box illumination, control lights and MMI (if applicable)			
S Tronic – change oil and replace filter element			A3 and TT only
Brake Fluid – replace every 2 years regardless of mileage.			
Cloth Top – check function and rollover protection every 2 years regardless of mileage (Audi A4 Cabriolet, S4 Cabriolet and RS 4 Cabriolet only).			

At 110K miles (175,000 km) replace timing belt (2.0L engine only). Check condition of timing belt tensioning system, dampening pulleys, and idler pulleys and replace if necessary (2.0L engine only).

Audi of America, Inc. believes the information and specifications to be correct at the time of printing. Specifications, maintenance intervals, standard features and options subject to change without notice.

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 9/22/2010 3:22:02 PM
Subject: Re: maintenance guide
sebastian.berenz@vw.com

Thanks again!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: <Sohacki.Lynn@epamail.epa.gov>
Date: 09/22/2010 10:20 AM
Subject: maintenance guide

Hello Lynn,

Attached you will find the missing maintenance card which shows when a oil change is needed.

Best regards.

Sebastian Berenz

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Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
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E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!
[attachment "2008 AU Maintenance Cards.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 9/24/2010 12:42:36 PM
Subject: open questions
sebastian.berenz@vw.com

Hello Lynn,

In order to answer your questions I have some additional information for you.

Oil:

You can use one of the following oils, as long as they are specified to the VW50200 standard

- 5W40
- 5W30
- 0W40

Oilfilter:

You need to order the following part number:

- 06E 115 562 A

It contains a filter and the gaskets

Then follow the descriptions I send you.

If you need one of these things we can support you with these parts. I checked for them and we have them in stock.

Just let me know.

If you have further questions, do not hesitate to task me.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4211

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E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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To: Linc Wehrly/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Fri 9/24/2010 12:57:42 PM
Subject: EPA/Audi Meeting Report
Meeting Report AUG 19 2010.doc

Hello all:

Attached is a copy of a report from a meeting between you and representatives of Audi AG and Volkswagen Group of America, Inc. This meeting was held on August 19, 2010.

Please note the open issues in the "Comments" section.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: Linc Wehrly/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Fri 9/24/2010 3:24:40 PM
Subject: RE: EPA/Audi Meeting Report
[01_st-st FTP data.pdf](#)

Hello all:

As mentioned in the meeting report provided earlier today, EPA requested some data to support a management decision regarding testing of a start-stop device. Attached, please find a short presentation that includes a modal analysis and description of the emissions impact due to the use of the device. In my telephone conversation with Linc earlier today, and my message to Jim, I believe that I referred to the start/stop system as using a "default-on strategy." This is not correct. In our presentation from August 19, 2010 and the attachment to this e-mail, we identify the system as using a "last mode strategy." The intent would be to conduct the testing in the "On" mode.

Our request is for approval for testing GHG CO2 with the system active, assuming that a field survey later demonstrates that this is the predominant operating mode.

If an official response is not possible at this time, some indication of EPA's thoughts and inclination would be appreciated.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

From: Kata, Leonard

Sent: Friday, September 24, 2010 8:58 AM

To: 'wehrly.linc@epa.gov'; 'Snyder.Jim@epamail.epa.gov'; Healy.Stephen@epamail.epa.gov;
Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov

Subject: EPA/Audi Meeting Report

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Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 9/27/2010 2:24:21 PM
Subject: VW Group: Test Waiver Requests Submitted

Hello Jim,

I have just finished submitting four test waiver requests to Verify for model year 2011 test group BADXV04.2375.

There are two vehicles representing the R8 Spyder and R8 Coupe with an existing 4.2l V8 engine and an automated manual transmission and a manual transmission.

These cars are getting new catalysts (which has already been discussed with you), a new calibration, new injectors and a separate AIR pump for each bank for model year 2011.

Let me know if you have any questions.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 9/27/2010 8:21:18 PM
Subject: Test Waiver Request Errors - 9/27/2010

Hello Jim,

This is in regard to our phone conversation on 9/27/2010.

I discovered an error that I made in the percent of standard for the SC03 4k CO tests results for the R8 test waiver requests. The macro I used added the DF to the 4k result before calculating the percent of standard. Actually, the results were less than 70% for both tests.

To compound that error, I thought the confirmatory test criteria was greater than or equal to 90%.

It was pointed out to me that it is only greater than 90%, so since the FTP 50k NOx is 90.0% percent of the standard, it is not necessary to perform manufacturer retests.

I apologize for the confusion. It's been a rough Monday.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Wed 9/29/2010 3:27:29 PM
Subject: Copy of the owners manual
[20100929112132186.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Attached you will find a copy of the owner's manual which shows when service is required.

There is a 1 year guideline.

If you have further questions let me know.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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Maintenance

Where do I bring my vehicle for service?

Authorized Audi dealers

Audi recommends you take your vehicle only to authorized Audi dealers to ensure that vehicle repairs are performed to the highest specifications. Your authorized Audi dealer has the proper tools and equipment, the staff of trained specialists, and access to the extensive range of parts necessary to properly maintain your vehicle's safety, reliability, and value for years to come.

Audi R8 Service and Repairs

Due to the specialized tools, equipment, and technical training necessary to perform service and repairs on the Audi R8, Audi recommends that all maintenance service and repair work is performed at an authorized Audi dealer with the designation Audi R8 Certified Point or Audi R8 Service Point. Audi will not accept any liability for maintenance service, repair, or any damage resulting from maintenance service or repair performed at a facility that is not an authorized Audi dealer with the designation Audi R8 Certified Point or Audi R8 Service Point. ■

When do I bring my vehicle in for service?

Service intervals

If you are not sure when you should bring your Audi in for service or which services are to be performed on your vehicle, ask your authorized Audi Service Advisor.

Service intervals in miles (kilometers)

5,000 miles (8,000 km) ^{a)}	Minor Maintenance Service with tire rotation
15,000 miles (25,000 km) ^{b)}	Major Maintenance Service
25,000 miles (40,000 km)	Minor Maintenance Service
35,000 miles (55,000 km)	Major Maintenance Service with additional items
45,000 miles (70,000 km)	Minor Maintenance Service
55,000 miles (85,000 km)	Major Maintenance Service with additional items
65,000 miles (100,000 km)	Minor Maintenance Service
75,000 miles (115,000 km)	Major Maintenance Service with additional items
85,000 miles (130,000 km)	Minor Maintenance Service
95,000 miles (145,000 km)	Major Maintenance Service
105,000 miles (160,000 km)	Minor Maintenance Service
110,000 miles (175,000 km)	Timing Belt Replacement (TT 2.0T front wheel drive and A4 Cabriolet 2.0T only)

The time-sensitive maintenance items table contains additional maintenance items

- a) First minor maintenance service at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first.
- b) First major maintenance service at 15,000 miles (25,000 km) or 1 year after the first minor service, whichever occurs first. Maintenance Services thereafter occur at 10,000 mile (15,000 km) intervals or 1 year from last service, whichever occurs first (alternating between minor and major services).

The intervals shown in this table are based on vehicles operating under normal conditions. In case of severe conditions, such as extremely low temperatures, excessive dust, etc., it is necessary for certain operations to be carried out in between the given intervals. This applies particularly to engine oil changes and the cleaning or replacing of the air cleaner filter element.

Time-sensitive maintenance items

The following maintenance items contain special time-sensitive service intervals (in addition to mileage intervals where applicable).

Service interval by time (and mileage where applicable)	Maintenance item
Every 2 years regardless of mileage (kilometers)	Replace brake fluid (all vehicles)
Every 2 years regardless of mileage (kilometers)	Check cloth top function and roll-over protection with cloth top down (Audi A4 Cabriolet and Audi S4 Cabriolet only)
At 3 years or 35,000 miles (55,000 km), whichever occurs first. Thereafter every 3 years or 40,000 miles (60,000 km), whichever occurs first.	Replace spark plugs (Audi A3 3.2L, Audi TT 3.2L, and Audi A8 6.0L only)
At 6 years or 55,000 miles (85,000 km), whichever occurs first. Thereafter every 6 years or 60,000 miles (90,000 km), whichever occurs first.	Replace spark plugs (all models except Audi A3 3.2L, Audi TT 3.2L, and Audi A8 6.0L)



For the sake of the environment

By regularly maintaining your vehicle, you help make sure that emission standards are maintained, thus minimizing adverse effects on the environment. ■

Maintenance service schedule

Minor Maintenance Service

First at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first. Thereafter every 20,000 miles (30,000 km) or two years, whichever occurs first.

Engine oil / Oil filter - Change oil and replace filter.

Service reminder indicator display - Reset display.

Brake system - Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades - Check condition and replace if necessary.

Windshield washer and headlight washing system - Add fluid if necessary. Check adjustment and function.

Tires and spare wheel - Check for wear and damage. Check tire pressure.

Additional item at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first.

Rotate tires ■

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 9/29/2010 6:15:32 PM
Subject: In-use vehicles scheduled for next week
[In-Use Parameters Form.xls](#)

Hi, Sebastian.

Listed below is the information for the vehicle that we have scheduled for next week. I will send another shortly.

N001RXX-0043c (2008 Audi/A4) **Ex. 6** 10/06/10 (Wednesday) 0930 pick up.

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 9/30/2010 7:45:43 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N001RXX-0043c- Ex. 6 .pdf
3.1FSI drain refill.pdf

Hello Lynn,

Attached you will find the required data for the first confirmatory car.

We will be in Ann Arbor around lunch time on Wednesday next week to inspect the car.

Please let me know when you need additional data.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
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FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, September 29, 2010 2:16 PM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicle that we have scheduled for next week. I will send another shortly.

N001RXX-0043c (2008 Audi/A4) - Ex. 6 10/06/10
(Wednesday) 0930 pick up.

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki

Environmental Protection Agency

(734)214-4851

(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

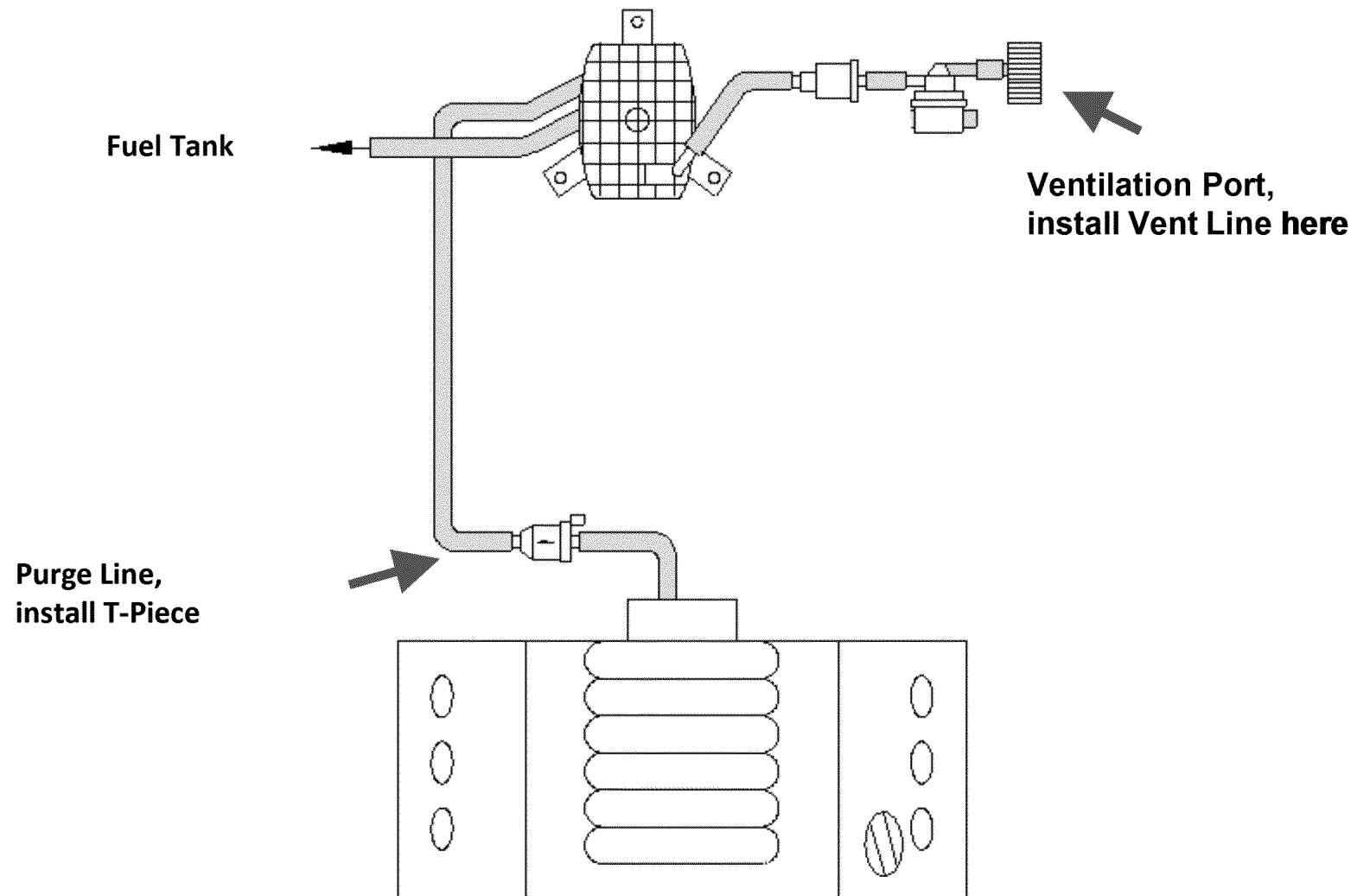
EG&G Representative:

Date:

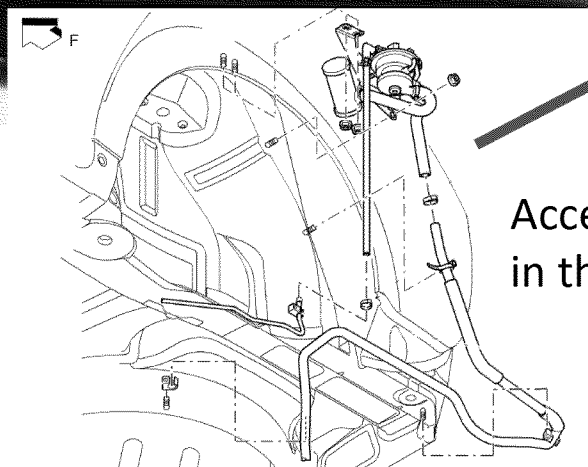
EPA Representative:

Date:

Structure of the Evap. System for Canister Loading/Purging

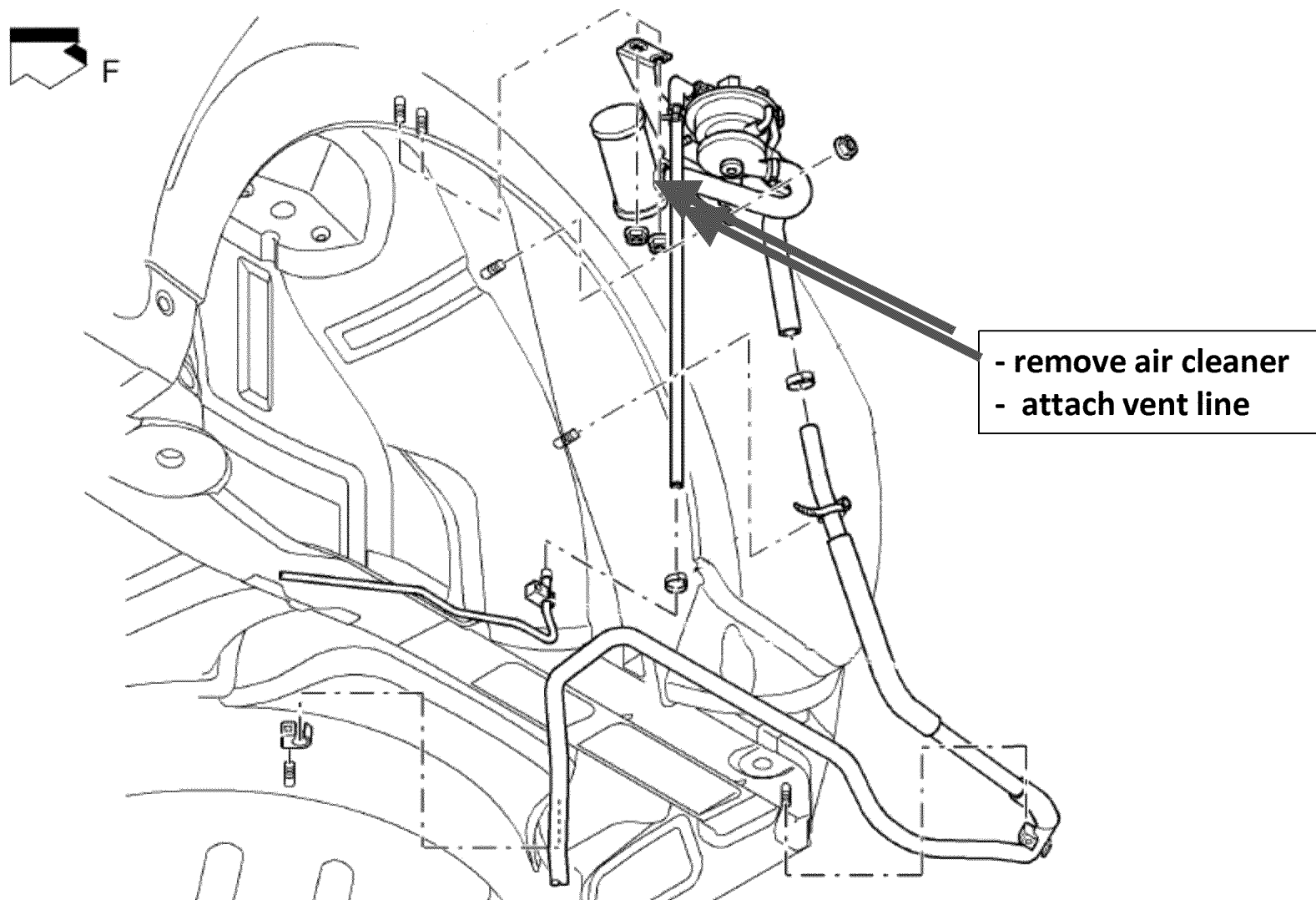


Audi A4, access to LDP Vent Port – rear left wheelhouse

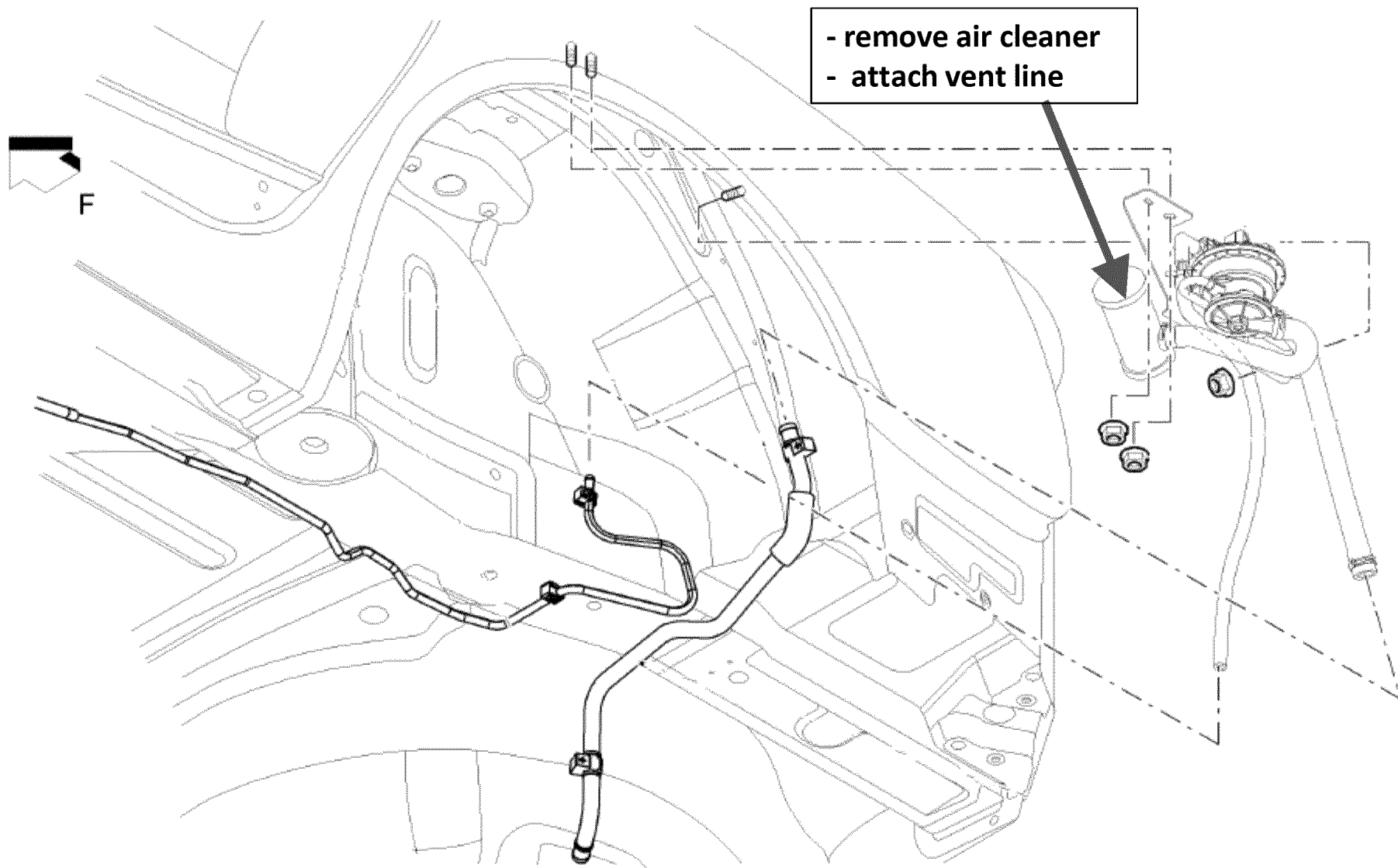


Access to LDP Vent port
in the rear left wheel house.

Audi A4, access to LDP Vent Port – rear left wheelhouse



Audi A6 access to LDP Vent Port – rear left wheelhouse

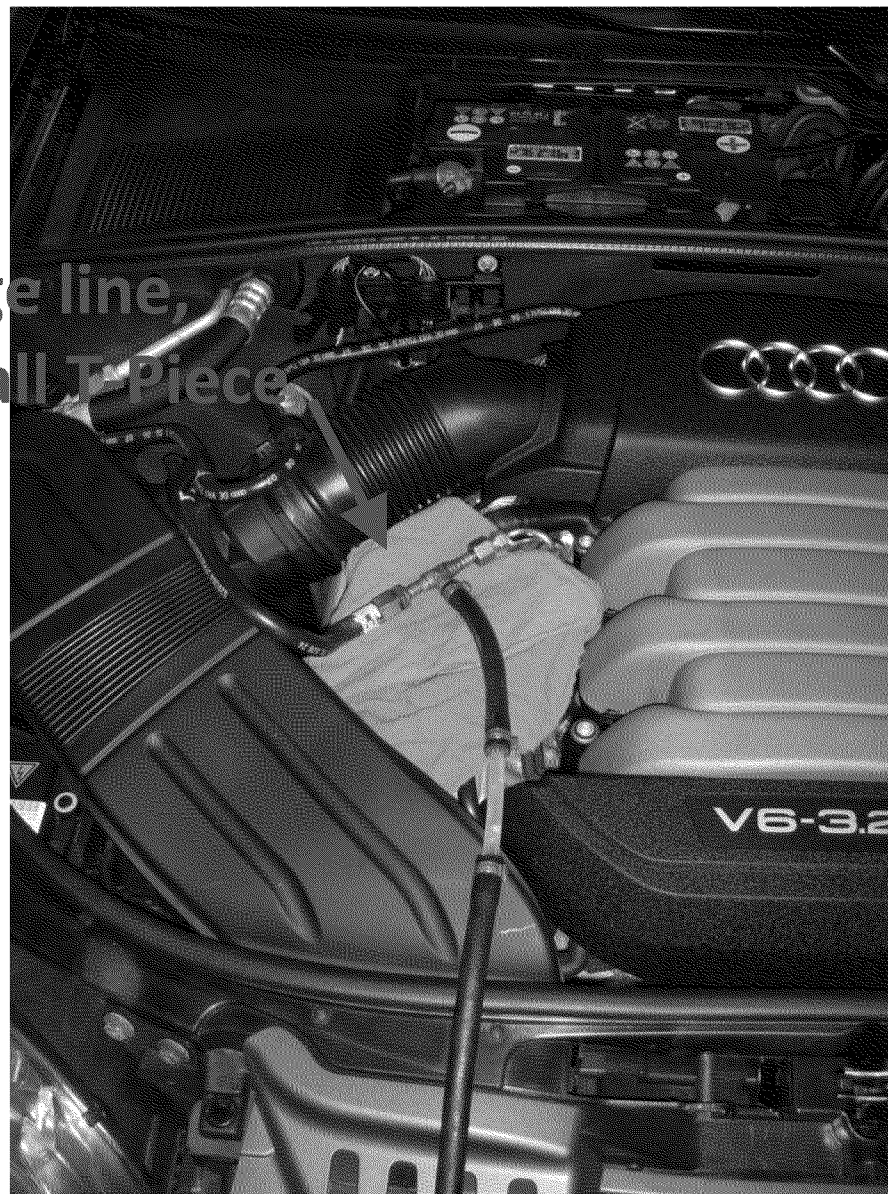


Engine Compartment



Engine Compartment

purge line,
install T-Piece



Engine Compartment



ESP Deactivation

1. With the foot brake applied, turn on the engine
2. The engine will continue to crank until firing.
3. Then press and hold the ESP off button for more than three seconds to switch ESP off.
4. The 'ESP off' symbol will be illuminated continuously in the driver information panel and the text 'ESP/ASR off' will display briefly as a reminder that the car is operating without the benefits of ESC.

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 9/30/2010 7:52:33 PM
Subject: Oil Change interval
[ELSA MY08 MaintInterval.pdf](#)
[owner's manual service interval-.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Here is another maintenance interval description of our dealer guideline.

I also attached a scan of missing third page.

So there need to be at least one oil change every three month.

I hope that answers your question.

If not let me know.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Enviromental Engineering Office

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Auburn Hills, MI 48326
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<http://www.volkswagen.com>

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MY 2008 Maintenance Intervals - USA

Service at every 5,000 miles or 1 Year after Last Service

Engine oil / Oil filter ↗ Change oil and replace filter.
 Service reminder indicator display ↗ Reset display.
 Brake system ↗ Check for damage and leaks, thickness of pads, and brake fluid level.
 Wiper blades ↗ Check condition and replace if necessary.
 Windshield wiper and washer/headlight washer ↗ Add fluid if necessary. Check adjustment and function.
 Tires and spare wheel ↗ Check for wear and damage .
 Check tire pressure.
 Rotate tires.

Service at 15,000 miles or 1 Year after Last Service

Engine oil / Oil filter ↗ Change oil and replace filter.
 Service reminder indicator display ↗ Reset display.
 Brake system ↗ Check for damage and leaks, thickness of pads, and brake fluid level.
 Wiper blades ↗ Check condition and replace if necessary.
 Windshield wiper and washer / Headlight washer ↗ Add fluid if necessary. Check adjustment and function.
 Tires and spare wheel ↗ Check for wear and damage .
 Check tire pressure. Check renewal date of tire repair set (where applicable).
 Engine ↗ Check fault memory of on-board diagnostic system (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).
 Battery ↗ Check and replace if necessary.
 Cooling system ↗ Check coolant level and add coolant if necessary.
 Engine compartment ↗ Check for leaks.
 Exhaust system ↗ Check for damage and leaks.
 Underbody ↗ Check for damage and leaks.
 Automatic transmission and final drive ↗ Check for leaks.
 Manual transmission and final drive ↗ Check for leaks.
 Drive shafts ↗ Check boots.
 Front axle ↗ Check for excessive play. Check dust seals on ball joints and tie rod ends (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).
 Doors ↗ Lubricate door check straps and hood latch (Audi A8 and Audi S8 only).
 Rear lid hinges ↗ Lubricate (Audi A8 and Audi S8 only).
 Horn ↗ Check function.
 Lights ↗ Check all lights. Check headlight adjustment (Audi A8 and Audi S8 only).
 Dust and pollen filter ↗ Replace filter.
 Snow screen for air cleaner ↗ Clean (Audi A4, Audi A5, Audi S5, and Audi A6 only).

Road test ⚙️ Check braking, kick ⚙️ down, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.

Ribbed V ⚙️ belt and tensioner ⚙️ Check condition and replace if necessary (Audi RS 4 and Audi R8 only).

Service at 25,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage .
Check tire pressure.

Service at 35,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage .
Check tire pressure. Check renewal date of tire repair set (where applicable).

Engine ⚙️ Check fault memory of on ⚙️ board diagnostic system (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8)

Battery ⚙️ Check and replace if necessary.

Cooling system ⚙️ Check coolant level and add coolant if necessary.

Engine compartment ⚙️ Check for leaks.

Exhaust system ⚙️ Check for damage and leaks.

Underbody ⚙️ Check for damage and leaks.

Automatic transmission and final drive ⚙️ Check for leaks.

Manual transmission and final drive ⚙️ Check for leaks.

Drive shafts ⚙️ Check boots.

Front axle ⚙️ Check for excessive play. Check dust seals on ball joints and tie rod ends.

Doors ⚙️ Lubricate door check straps and hood latch.

Rear lid hinges ⚙️ Lubricate (Audi A8 and Audi S8 only).

Horn ⚙️ Check function.

Lights ⚙️ Check all lights. Check headlight adjustment (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).

Dust and pollen filter ⚙️ Replace filter.

Snow screen for air cleaner ⚙️ Clean (Audi A4, Audi A5,

Audi S5, and Audi A6 only).

Road test ⚙️ Check braking, kick ⚙️ down, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.

Ribbed V ⚙️ belt and tensioner ⚙️ Check condition and replace if necessary (Audi RS 4, Audi Q7 3.6L, Audi A8 6.0L, and Audi R8 only).

Spark plugs ⚙️ Replace → Note (Audi A3 3.2L, Audi TT 3.2L, and A8 6.0L only).

Air cleaner ⚙️ Clean the housing and replace the f ilter element (Audi RS 4 and Audi A8 6.0L only).

Haldex clutch ⚙️ Change oil (Audi A3 and Audi TT o nly).

Continuously variable transmission (multitronic™) ⚙️ Change ATF.

S tronic ⚙️ Change oil and replace filter element (Audi A3 and Audi TT only).

Power steering fluid ⚙️ Check fluid level. Add if necessary.

Brake discs ⚙️ Check thickness.

Lights ⚙️ Check all lights via instrument cluster. Check license plate light from the rear of the vehicle (Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8 only).

Interior lights ⚙️ Check all interior lights, glove box compartment illumination, control lights, and MMI (if applicable).

Front sunroof drains (where applicable) ⚙️ Open sunroof to check front water drain and clean if necessary.

Plenum panel ⚙️ Remove cover for plenum panel to c heck water drains and clean if necessary. (A4, A4 Avant, A4 Cabriolet, S4, S4 Cabriolet, RS4, RS4 Cabriolet, A6 , A6 Avant, S6, A8 and S8)

- 1) Spark plug replacement at 35,000 miles or 3 years, whichever occurs first. Thereafter every 40,000 miles (60,000 km) or 3 years, whichever occurs first.

Service at 45,000 miles or 1 Year after Last Service

Engine oil / Oil Filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage . Check tire pressure.

Service at 55,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙ Check for wear and damage . Check tire pressure. Check renewal date of tire repair set (where applicable).

Engine ⚙ Check fault memory of on-board diagnostic system (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).

Battery ⚙ Check and replace if necessary.

Cooling system ⚙ Check coolant level and add coolant if necessary.

Engine compartment ⚙ Check for leaks.

Exhaust system ⚙ Check for damage and leaks.

Underbody ⚙ Check for damage and leaks.

Automatic transmission and final drive ⚙ Check for leaks.

Manual transmission and final drive ⚙ Check for leaks.

Drive shafts ⚙ Check boots.

Front axle ⚙ Check for excessive play. Check dust seals on ball joints and tie rod ends (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).

Doors ⚙ Lubricate door check straps and hood latch (Audi A8 and Audi S8 only)

Rear lid hinges ⚙ Lubricate (Audi A8 and Audi S8 only).

Horn ⚙ Check function.

Lights ⚙ Check all lights. Check headlight adjustment (Audi A8 and Audi S8 only).

Dust and pollen filter ⚙ Replace filter.

Snow screen for air cleaner ⚙ Clean (Audi A4, Audi A5, Audi S5, and Audi A6 only).

Road test ⚙ Check braking, kick-down, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.

Ribbed V-belt and tensioner ⚙ Check condition and replace if necessary (Audi RS 4 and Audi R8 only).

Spark plugs ⚙ Replace → Note (except Audi A3 3.2L, Audi TT 3.2L, and Audi A8 6.0L).

Air cleaner ⚙ Clean the housing and replace the filter element (except Audi RS 4, Audi Q7 4.2L, and Audi A8 6.0L).

- 2) Spark plug replacement at 55,000 miles or 6 years, whichever occurs first. Thereafter every 60,000 miles (90,000 km) or 6 years, whichever occurs first.

Service at 65,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙ Change oil and replace filter.

Service reminder indicator display ⚙ Reset display.

Brake system ⚙ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage .
Check tire pressure.

Service at 75,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.
Service reminder indicator display ⚙️ Reset display.
Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.
Wiper blades ⚙️ Check condition and replace if necessary.
Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.
Tires and spare wheel ⚙️ Check for wear and damage .
Check tire pressure. Check renewal date of tire repair set (where applicable).
Engine ⚙️ Check fault memory of on-board diagnostic system (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).
Battery ⚙️ Check and replace if necessary.
Cooling system ⚙️ Check coolant level and add coolant if necessary.
Engine compartment ⚙️ Check for leaks.
Exhaust system ⚙️ Check for damage and leaks.
Underbody ⚙️ Check for damage and leaks.
Automatic transmission and final drive ⚙️ Check for leaks.
Manual transmission and final drive ⚙️ Check for leaks.
Drive shafts ⚙️ Check boots.
Front axle ⚙️ Check for excessive play. Check dust seals on ball joints and tie rod ends.
Doors ⚙️ Lubricate door check straps and hood latch.
Rear lid hinges ⚙️ Lubricate (Audi A8 and S8 only) .
Horn ⚙️ Check function.
Lights ⚙️ Check all lights. Check headlight adjustment (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).
Dust and pollen filter ⚙️ Replace filter.
Snow screen for air cleaner ⚙️ Clean (Audi A4, Audi A5, Audi S5, and Audi A6 only).
Road test ⚙️ Check braking, kick-down, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.
Ribbed V-belt and tensioner ⚙️ Check condition and replace if necessary (Audi RS 4, Audi Q7 3.6L, Audi A8 6.0L, and Audi R8 only).
Spark plugs ⚙️ Replace (Audi A3 3.2L, Audi TT 3.2L , and A8 6.0L only).
Air cleaner ⚙️ Clean the housing and replace filter element (Audi RS 4, Audi Q7 4.2L, and Audi A8 6.0L only).
Haldex clutch ⚙️ Change oil (Audi A3 and Audi TT only).
Continuously variable transmission (multitronic™) ⚙️ Change ATF (where applicable).

S tronic ⚙️ Change oil and replace filter element (Audi A3 and Audi TT only).

Power steering fluid ⚙️ Check fluid level and add if necessary.

Brake discs ⚙️ Check thickness.

Lights ⚙️ Check all lights via instrument cluster. Check license plate light from the rear of the vehicle (Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8 only).

Interior lights ⚙️ Check all interior lights, glove box compartment illumination, control lights, and MMI (if applicable).

Ribbed V-belt ⚙️ Check condition and replace if necessary. Check tension of belt drive with a manual tensioner and retension if necessary (2.0L, 3.2L, 4.2L FSI, and 5.2L engines only).

Ribbed V-belt ⚙️ Replace (Audi S4 only).

Front sunroof drains (where applicable) ⚙️ Open sunroof to check front water drain and clean if necessary.

Plenum panel ⚙️ Remove cover for plenum panel to check water drains and clean if necessary. (A4, A4 Avant, A4 Cabriolet, S4, S4 Cabriolet, RS4, RS4 Cabriolet, A6, A6 Avant, S6, A8 and S8)

Service at 85,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage. Check tire pressure.

Service at 95,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage. Check tire pressure. Check renewal date of tire repair set (where applicable).

Engine ⚙️ Check fault memory of on-board diagnostic system (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).

Battery ⚙️ Check and replace if necessary.

Cooling system ⚙️ Check coolant level and add coolant if necessary.

Engine compartment ⚙️ Check for leaks.

Exhaust system ⚙️ Check for damage and leaks.

Underbody ⚙️ Check for damage and leaks.

Automatic transmission and final drive ⚙️ Check for leaks.

Manual transmission and final drive ⚙️ Check for leaks.

Drive shafts ⚙️ Check boots.

Front axle ⚙️ Check for excessive play. Check dust seals on ball joints and tie rod ends (except Audi Q7, Audi TT, Audi A5, Audi S5, and Audi R8).

Doors ⚙️ Lubricate door check straps and hood latch (Audi A8 and Audi S8 only).

Rear lid hinges ⚙️ Lubricate (Audi A8 and S8 only).

Horn ⚙️ Check function.

Lights ⚙️ Check all lights. Check headlight adjustment (Audi A8 and Audi S8 only).

Dust and pollen filter ⚙️ Replace filter.

Snow screen for air cleaner ⚙️ Clean (Audi A4, Audi A5, Audi S5, and Audi A6 only).

Road test ⚙️ Check braking, kickdown, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.

Ribbed V-belt and tensioner ⚙️ Check condition and replace if necessary (Audi RS 4 and Audi R8 only).

Service at 105,000 miles or 1 Year after Last Service

Engine oil / Oil filter ⚙️ Change oil and replace filter.

Service reminder indicator display ⚙️ Reset display.

Brake system ⚙️ Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades ⚙️ Check condition and replace if necessary.

Windshield wiper and washer / Headlight washer ⚙️ Add fluid if necessary. Check adjustment and function.

Tires and spare wheel ⚙️ Check for wear and damage. Check tire pressure.

Timing Belt Replacement at 110,000 miles - 2.0L Engines Only

Replace timing belt. Check condition of timing belt tensioning system, dampening pulleys, and idler pulleys and replace if necessary (2.0L engines only).

Maintenance

Where do I bring my vehicle for service?

Authorized Audi dealers

Audi recommends you take your vehicle only to authorized Audi dealers to ensure that vehicle repairs are performed to the highest specifications. Your authorized Audi dealer has the proper tools and equipment, the staff of trained specialists, and access to the extensive range of parts necessary to properly maintain your vehicle's safety, reliability, and value for years to come.

Audi R8 Service and Repairs

Due to the specialized tools, equipment, and technical training necessary to perform service and repairs on the Audi R8, Audi recommends that all maintenance service and repair work is performed at an authorized Audi dealer with the designation Audi R8 Certified Point or Audi R8 Service Point. Audi will not accept any liability for maintenance service, repair, or any damage resulting from maintenance service or repair performed at a facility that is not an authorized Audi dealer with the designation Audi R8 Certified Point or Audi R8 Service Point. ■

When do I bring my vehicle in for service?

Service intervals

If you are not sure when you should bring your Audi in for service or which services are to be performed on your vehicle, ask your authorized Audi Service Advisor.

Service intervals in miles (kilometers)	
5,000 miles (8,000 km) ^{a)}	Minor Maintenance Service with tire rotation
15,000 miles (25,000 km) ^{b)}	Major Maintenance Service
25,000 miles (40,000 km)	Minor Maintenance Service
35,000 miles (55,000 km)	Major Maintenance Service with additional items
45,000 miles (70,000 km)	Minor Maintenance Service
55,000 miles (85,000 km)	Major Maintenance Service with additional items
65,000 miles (100,000 km)	Minor Maintenance Service
75,000 miles (115,000 km)	Major Maintenance Service with additional items
85,000 miles (130,000 km)	Minor Maintenance Service
95,000 miles (145,000 km)	Major Maintenance Service
105,000 miles (160,000 km)	Minor Maintenance Service
110,000 miles (175,000 km)	Timing Belt Replacement (TT 2.0T front wheel drive and A4 Cabriolet 2.0T only)
125,000 miles (200,000 km)	Minor Maintenance Service with additional item
The time-sensitive maintenance items table contains additional maintenance items	

^{a)} First minor maintenance service at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first.

- b) First major maintenance service at 15,000 miles (25,000 km) or 1 year after the first minor service, whichever occurs first. Maintenance Services thereafter occur at 10,000 mile (15,000 km) intervals or 1 year from last service, whichever occurs first (alternating between minor and major services).

The intervals shown in this table are based on vehicles operating under normal conditions. In case of severe conditions, such as extremely low temperatures, excessive dust, etc., it is necessary for certain operations to be carried out in between the given intervals. This applies particularly to engine oil changes and the cleaning or replacing of the air cleaner filter element.

Time-sensitive maintenance items

The following maintenance items contain special time-sensitive service intervals (in addition to mileage intervals where applicable).

Service interval by time (and mileage where applicable)	Maintenance item
Every 2 years regardless of mileage (kilometers)	Replace brake fluid (all vehicles)
Every 2 years regardless of mileage (kilometers)	Check cloth top function and roll-over protection with cloth top down (Audi A4 Cabriolet and Audi S4 Cabriolet only)
At 3 years or 35,000 miles (55,000 km), whichever occurs first. Thereafter every 3 years or 40,000 miles (60,000 km), whichever occurs first.	Replace spark plugs (Audi A3 3.2L, Audi TT 3.2L, A4 2.0L TFSI, A5 2.0L TFSI, TTS, and Audi A8 6.0L only)
At 6 years or 55,000 miles (85,000 km), whichever occurs first. Thereafter every 6 years or 60,000 miles (90,000 km), whichever occurs first.	Replace spark plugs (all models except Audi A3 3.2L, Audi TT 3.2L, A4 2.0L TFSI, A5 2.0L TFSI, TTS, and Audi A8 6.0L)



For the sake of the environment

By regularly maintaining your vehicle, you help make sure that emission standards are maintained, thus minimizing adverse effects on the environment. ■

Maintenance service schedule

Minor Maintenance Service

First at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first. Thereafter every 20,000 miles (30,000 km) or two years, whichever occurs first.

Engine oil / Oil filter - Change oil and replace filter.

Service reminder indicator display - Reset display.

Brake system - Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades - Check condition and replace if necessary.

Windshield washer and headlight washing system - Add fluid if necessary. Check adjustment and function.

Tires and spare wheel - Check for wear and damage. Check tire pressure.

AdBlue fluid - Fill completely with fresh fluid (23 liters). (Audi Q7 3.0L TDI only)

Additional item at 5,000 miles (8,000 km) or 1 year after delivery, whichever occurs first.

Rotate tires ■

Major Maintenance Service

First at 15,000 miles (25,000 km) or two years, whichever occurs first. Thereafter every 20,000 miles (30,000 km) or two years, whichever occurs first.

Engine oil / Oil filter - Change oil and replace filter.

Service reminder indicator display - Reset display.

Brake system - Check for damage and leaks, thickness of pads, and brake fluid level.

Wiper blades - Check condition and replace if necessary.

Windshield washer and headlight washing system - Add fluid if necessary. Check adjustment and function.

Tires and spare wheel - Check for wear and damage. Check tire pressure. Check renewal date of tire repair set (where applicable).

AdBlue fluid - Fill completely with fresh fluid (23 liters). (Audi Q7 3.0L TDI only)

Engine - Check fault memory of on-board diagnostic system (Audi A3, A4 Cabriolet, S4, A6, S6, A8, and S8 only).

Battery - Check and replace if necessary.

Cooling system - Check coolant level and add coolant if necessary.

Engine compartment - Check for leaks.

Exhaust system - Check for damage and leaks.

Underbody - Check for damage and leaks.

Automatic transmission and final drive - Check for leaks.

Manual transmission and final drive - Check for leaks.

Drive shafts - Check boots.

Front axle - Check for excessive play. Check dust seals on ball joints and tie rod ends (Audi A3, A4 Cabriolet, S4, A6, S6, A8 & S8 only).

Doors - Lubricate door check straps and hood latch (Audi A8 and S8 only).

Rear lid hinges - Lubricate (Audi A8 and S8 only).

Horn - Check function.

Lights - Check all lights. Check headlight adjustment (Audi A8 and S8 only).

Dust and pollen filter - Replace filter.

Snow screen for air cleaner - Clean (Audi A4, A5, S5, and A6 only).

Road test: Check braking, kick-down, steering, electrical, heating and ventilation systems, air conditioning, (ASL) Automatic Shift Lock, and power accessories.

Ribbed V-belt and tensioner - Check condition and replace if necessary (Audi R8 only).

Fuel filter - Remove water (Audi Q7 3.0L TDI only)

Plenum Panel- Clean if dirty (except A3 and Audi Q5) ■

Addit

Perform major service every 40,000

Ribbed V-belt and tensioner (Audi R8 only)

Air cleaner (Audi A8 6.0L)

Fuel filter

Haldex (Audi A8 6.0L)

Continuously Variable Transmission (CVT) (Audi A8 6.0L)

DSG/Shift (Audi A8 6.0L)

Power steering (Audi A8 6.0L)

Front axle and tie rod ends (Audi A8 6.0L)

Brake disc (Audi A8 6.0L)

Lights - Cabriolet (Audi A8 6.0L)

Lights - light from (Audi A8 6.0L)

Interior illumination (Audi A8 6.0L)

Doors - (Audi A8 6.0L)

Spark plug (Audi A8 6.0L)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 9/30/2010 8:10:08 PM
Subject: Re: Oil Change interval
sebastian.berenz@vw.com

Hi, Sebastian.

Thank you. This is very helpful.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 09/30/2010 04:01 PM
Subject: Oil Change interval

Hello Lynn,

Here is another maintenance interval description of our dealer guideline.
I also attached a scan of missing third page.

So there need to be at least one oil change every three month.

I hope that answers your question.

If not let me know.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
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FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

[attachment "ELSA_MY08_MaintInterval.pdf" deleted by Lynn Sohacki/AA/USEPA/US] [attachment "owner's manual service interval-.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: CN=Ben Haynes/OU=AA/O=USEPA/C=US@EPA;CN=David
Bochenek/OU=AA/O=USEPA/C=US@EPA[]; N=David
Bochenek/OU=AA/O=USEPA/C=US@EPA[]
Cc: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]; N=Don
Louwsma/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Fri 10/1/2010 3:46:13 PM
Subject: charger on Bentley

Bentley has requested that a charger be put on their vehicle and I have approved it. The instructions on hooking up a charger are with the vehicle.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 10/4/2010 7:24:26 PM
Subject: Bentley testing

Bob, the Bentley will run some time after noon so tell Sebastian to be here by 12.

Have him call Vince or me when he gets here.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 10/6/2010 3:47:07 PM
Subject: Re: EPA Certificate for Test Group BADXV04.2375
([embedded image](#))

Sorry, that priority project has flared up again. I asked Steve to look it over today.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 10/06/2010 09:42 AM
Subject: EPA Certificate for Test Group BADXV04.2375

Hello Jim,

If you read this before you check your voice mail, you can ignore the message I left because it is the same subject.

I need to know the status of the EPA Certificate for Test Group BADXV04.2375. We need it as soon as possible.

Cars are built Ex. 4 - CBI

LD Certificate Request received - Message

From: Verify Administrator
Subject: LD Certificate Request received
Date: Mon 9/27/2010 3:50 PM

Your recent LD Certificate Request submission has been received by the EPA and you will be notified if any additional actions on your part are required. A Submission Processing Report and any requested dataset reports can be found on the status history page. The status history page can be reached by clicking on the link near the bottom of this Inbox message.

The following is a summary of the processing report:

Total Datasets Submitted: 1

Accepted Datasets: 1

Rejected Datasets: 0

Test Group Name: BADXV04.2375

Transaction Identifier: _a09cc86a-037c-4c70-b008-98e3123ea623

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 10/7/2010 1:12:32 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N001RXX-0055C (2008 Audi/A6) - Ex. 6 1000 vehicle pick up on 10/13/10
(Wednesday)

N001RXX-0018C (2008 Audi/A4) - Ex. 6 0830 vehicle pick up on 10/14/10
(Thursday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 10/7/2010 1:58:33 PM
Subject: RE: EPA's Confirmatory Maintenance Form
[N001 maintenance before FTP.doc](#)
[FilterReplaceProc.pdf](#)
[FluidCapacity.pdf](#)
[OilFilterAssem.pdf](#)
[OilLevelCheck.pdf](#)

Hi, Sebastian.

We noticed that the pressure for the radiator cap is higher than that for the radiator system. This is the opposite of what we usually see because most manufacturers want the radiator to release pressure before the radiator system. I just wanted to confirm that this is correct.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 09/22/2010 09:35 AM
Subject: RE: EPA's Confirmatory Maintenance Form

Hello Lynn,

Attached you will find your questionnaire with my added details.
Further I have attached a description for the oil change, specifications for the oil and coolant and how to change the filter.

Let me know if you have any questions on this or need something additionally.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.

3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, September 22, 2010 8:26 AM
To: Berenz, Sebastian
Subject: Fw: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

I will need the information for the maintenance very soon. Also, I need to know what the maintenance schedule says regarding oil changes. Do you have a copy of the page from the owner's manual that you can send me?

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 09/22/2010 08:24 AM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
Date: 08/25/2010 04:20 PM
Subject: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

Attached is the form that we use during maintenances for vehicles in a confirmatory class. There are a few items that I need you to provide.

I've indicated those things in red. Please fill in the blanks and return the file to me. Please also let me know if you have any questions.

In case you are interested in seeing the telephone questionnaire, I've attached that as well.

Thanks,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

(See attached file: N001c-002c TELEPHONE QUESTIONNAIRE.doc)(See attached
file: N001 maintenance before FTP.doc)

IN-USE TESTING
MAINTENANCE BEFORE FTP

VEHICLE CONTROL # _____ VIN _____

VEHICLE MODEL _____ ENGINE FAMILY _____

ENGINE CODE/CALIBRATION _____ TRANSMISSION _____
(Speeds if-M/T)

ODOMETER _____ EVAP FAMILY _____

DATE _____ TIME _____ FUEL TYPE _____

NOTE: If any of the following items are not applicable to the vehicle being inspected, mark N/A.

1. Record the following information:

- a. Vehicle build date _____
- b. Actual tire sizes Left Front _____ Right Front _____
Left Rear _____ Right Rear _____
- c. GWR _____ Front _____ Rear _____ e. COLOR: Exterior _____
- d. Recall campaign sticker / / YES / / NO Interior _____
- Recall campaign number from sticker _____
- None found _____

2. Inspect the fuel filler neck for the presence of, and/or damage to the unleaded fuel restrictor. Use leaded nozzle to determine if restrictor is operational.

_____ ok
_____ damaged, describe _____
_____ not present

REJECT IF RESTRICTOR IS DAMAGED OR LEADED NOZZLE FITS INTO FUEL FILLER NECK

3. Remove a sample of fuel from the tank and deliver to chem. lab for analysis. _____

4. Determine the axle ratio; make 10 wheel revolutions (applicable to rear-drive only).

(no. of driveshaft revolutions X2) = _____ X 2 = _____

(no. of wheel revolutions) 10

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

5.

Check brakes for excessive drag. Adjust if necessary.

_____ brake drag ok

_____ excessive brake drag (adjusted)

6. Inspect catalyst body, if so equipped, for discoloration, signs of damage, bulges, burn-out or evidence of plug removal.

_____ catalyst ok

other (describe) _____

7. Record the following part numbers.

Catalyst _____ PROM _____

TPS Sensor _____ PCV valve _____

Throttle body _____ ECM (computer) _____

O2 Sensor _____ EGR valve _____

8. a. Record trouble codes MIL or pending codes in vehicle's computer system at beginning of EPA maintenance: _____

b. Readiness Tests

Catalyst _____ Evap System _____

Secondary Air _____ O2 Sensor _____

O2 Sensor Heater _____ EGR system _____

c. At the time during the maintenance, is the MIL on?

9. a. Check cooling system, both radiator and reservoir (if applicable) for coolant and fill if necessary.

Reservoir

_____ level ok

_____ level low _____ coolant added _____ (amount)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

Radiator

_____ level ok
_____ level low _____ coolant added _____ (amount)

b. Check coolant condition, replace if poor.

_____ coolant condition ok
_____ coolant condition poor, (specify) _____
_____ coolant replaced

c. Perform the following pressure checks:

Radiator cap pressure check; pressure applied: (need pressure) bar

VW: **1.4... 1.6 bar**
 20.3...23.2 psi

_____ no leakage
_____ cap leaks
_____ cap does not release pressure
_____ cap replaced

Radiator pressure check; pressure applied: (need pressure) bar

VW: **1.0 bar**
 14.5 psi

_____ no leakage
_____ hoses and clamps ok
_____ radiator leaks
_____ leakage repaired

d. freeze protection level _____

TBD spec = -## degrees at ##% mixture adjusted to _____

VW:

**Coolant (40 %) and water (60 %) for temperature down to -25 °C / -
13F.**

**Coolant (50 %) and water (50 %) for temperature down to -35 °C / -
31F.**

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

10. Check drive belts. Replace if cracked, frayed, glazed or excessively worn. Adjust if loose

_____ belt (s) ok

_____ belt (s) adjusted or replaced, specify

11. Visually inspect battery for electrolyte level. If level is low add distilled water.

_____ level ok _____ level low _____ Water added

/ / Maintenance free battery (if equipped with an indicator, record observation).

12. Check the power steering fluid and add if necessary.

_____ not applicable

_____ level low

_____ level ok

_____ fluid added _____ (amount)

13. Visually inspect the vehicle for:

- a. Signs of obvious tampering.

_____ none found

_____ yes

Describe _____

- b. Fuel system plug (s). Plug location: _____

_____ all present and intact

_____ plug (s) missing; Describe _____

14. Check all fuel system linkages for free operation. (throttle linkages.)

_____ Free operation

_____ Sticking, binding, etc.; describe

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

____ Repaired, describe _____

15. Check the condition of the hoses of the following systems for cuts, cracks, or hardening. Check for correct routing of hoses. Check function where indicated, repair if appropriate.

a. Air cleaner hoses.

_____ correctly routed, ok condition

_____ air cleaner door functional

_____ not ok, specify _____

_____ repaired or replaced, describe _____

b. Spark timing control hoses.

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

c. Crankcase emission control hoses.

_____ correctly routed, ok condition

_____ air moves through PCV system

_____ not ok, specify _____

_____ repaired or replaced, describe _____

d. EGR system hoses.

_____ correctly routed, ok condition

rpm required for movement _____ rpm

_____ not ok, specify _____

_____ repaired or replace, describe _____

e. Evaporative emission system hoses.

_____ correctly routed, ok condition, vent and purge functions OK

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

_____ no ok, specify _____

_____ repaired or replaced, describe _____

f. Air injection system hoses.

_____ not applicable

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

g. Speed control system.

/ / O.E. system / / non-O.E. system / / not applicable

For O.E. system:

_____ correctly routed, ok condition

_____ not ok, specify _____

_____ repaired or replaced, describe _____

For non-O.E. system:

/ / System disconnected at throttle

h. List problems found with any other vacuum hoses.

_____ no other problems found

_____ problems found, specify _____

Action taken _____

16. Start engine Time _____

Engine warm Time _____

(Vehicles equipped with an electric cooling fan should be run until fan operates)

Electric cooling fan operates YES / / NO / / Not equipped / /
with an electric cooling fan

If NO, describe _____

17. Check the automatic transmission fluid level and add if necessary.

_____ not applicable _____ level low

_____ level ok _____ fluid added

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC

MANUFACTURER REPRESENTATIVE

EPA REPRESENTATIVE

18. Check electrical wiring for proper connections and integrity of wires (idle solenoid, ignition and spark control, engine temperature switches, sensors, etc.).

_____ wiring ok
 _____ not ok, specify _____
 _____ repaired or replaced, describe _____

19. Exhaust System

- a. _____ Drain holes plugged in exhaust system
 _____ Not applicable
- b. Check exhaust system for leaks with engine running.
 _____ No leaks
 _____ System leaks; location _____
 _____ Leaks repaired; describe _____

20. a. Remove all spark plugs. See emission label to determine if plug is O.E. Record the information for the plug(s) removed.

Specified O.E. make and number _____

Specified gap _____

b. Check compression

Compression Spec. please provide _____

(Always use a fully charged battery to obtain engine speed of 250 rpm or more)

VW: new 11.0... 14.0 bar
min. 10 bar
difference between cylinder max. 3.0 bar

Cylinder No.	Brand	Part No.	Gap	Condition	Compression
1	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ / MANUFACTURER REPRESENTATIVE _____ / EPA REPRESENTATIVE _____

9 of 14 2008 Audi A4 and A6 8ADXV03.1374 Confirmatory Class #:N001c/N002cRXX-____
 4 _____
 5 _____
 6 _____

If actual plugs are non-O.E., are they equivalent to O.E.?

_____ yes _____ no _____ Unknown _____ Not Applicable

Replace ALL plugs with O.E. plugs.

List brand and type of new plugs installed: _____

21. Check valve clearances (if applicable) and adjust if necessary. See VECI label (ONLY IF RECORDS SHOW THAT ROCKER ARM OR LIFTERS HAVE BEEN REMOVED OR REPLACED)

Spec: Spec:
 Intake _____ (Other) _____
 Exhaust _____

	1	2	3	4	5	6	7	8
As Received:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____
Set to:								
Intake	_____	_____	_____	_____	_____	_____	_____	_____
Exhaust	_____	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____	_____

22. Check the following to determine whether they are non-O.E. parts and their condition. Replace any found to be excessively worn, or dirty, or fouled, or if parts are not equivalent to O.E. Also, replace parts for which removal necessitates replacement.

O.E. NON.-O.E. NOT APPL. CONDITION MAINTENANCE
 ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____ MANUFACTURER REPRESENTATIVE _____ EPA REPRESENTATIVE _____

a. air filter _____

NOTE: Manufacturer recommended air cleaner filter is: _____

b. oil filter _____

c. fuel filter _____

d. ignition wires _____

e. distributor cap _____

f. distributor rotor _____

g. PCV valve _____

h. PCV filter _____

i. air conditioner _____

j. fuel filler cap _____

k. List below any other non-O.E. parts found in the visual check and their condition and maintenance _____ None Non-O.E. _____

NOTE: Manufacturer recommended air cleaner filter is: What is the recommended air cleaner?

VW:

for AUDI A6: 4F0 133 843

For AUDI A4: 06C 133 843

23. a. Check oil level.

_____ oil level ok

_____ oil level below ½ qt.

b. Replace oil and filter as recommended by manufacturer:

#W## GF# oil; engine oil filter: _____

VW:

VW 50200 oil

5W40

5W30

0W40

_____ oil and oil filter replaced

24. For LDTs only (#24 and #25)

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC _____

MANUFACTURER REPRESENTATIVE _____

EPA REPRESENTATIVE _____

Do only if the truck has over _____ miles or is over _____ months old.

Is the EGR maintenance light on? Yes _____ No _____

If the EGR light is on and the maintenance has not been performed previously by the owner (from the owner's records), perform the following :

25. Verify if O2 maintenance has been performed (from owner's records)

Yes _____ No _____

If yes, when? _____

If O2 maintenance has not been performed, perform the following:

Additional maintenance items to be performed:

26. Start engine Time _____

Engine warm Time _____

27. Preparation for parameter set.

_____ engine at normal operating temperature

_____ accessory equipment off

PERFORM THE FOLLOWING CHECKS AND ADJUSTMENTS ACCORDING TO THE PROCEDURES AND INSTRUCTIONS SPECIFIED ON THE EMISSION LABEL AND/OR THE SHOP MANUAL.

28. Check idle ignition timing and adjust if necessary.

gear setting _____

as received _____ at _____ rpm

spec.* _____ at _____ rpm

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

set to _____ at _____ rpm
*See VECI label and/or shop manual.

29. Check and adjust, if necessary, the idle speed(s) settings.

Idle speed adjustment plugs present / /yes / / no / / N/A

If idle is out of spec. see VECI label and/or shop manual.

- a. Curb idle speed

gear setting _____ observed _____ rpm

spec.* _____ rpm set to _____ rpm

*See VECI label and/or shop manual

- b. TPS output voltage. (Curb idle speed)

observed _____ vdc

Spec. _____

30. List any comments relevant to the inspection performed on this vehicle:

31. Record Trouble Codes (after M-2)

32. Attach any special procedures to this form.

Special procedures attached? Y / N

Time completed _____

Date _____

Signature of mechanic and observers:

MECHANIC _____

EPA REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

MANUFACTURER REPRESENTATIVE _____

ALL THE ABOVE ITEMS HAVE BEEN PERFORMED

_____/_____/_____
MECHANIC MANUFACTURER REPRESENTATIVE EPA REPRESENTATIVE

[illegible]

MECHANIC	MANUFACTURER REPRESENTATIVE	EPA REPRESENTATIVE
1. Name		
2. Address		
3. City		
4. State		
5. Zip		
6. Phone		
7. Fax		
8. E-mail		
9. Signature		
10. Title		
11. Date		

Engine Oil, Draining and Replacing Oil Filter



WARNING

Oil extraction not permitted with various engine types!



Note

Perform oil change at operating temperature.

Special tools and workshop equipment required

Oil Extractor 1782

Tension Band 2171

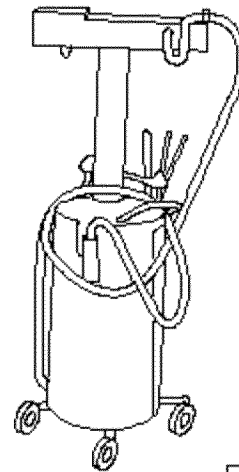
Oil Filter Key 3417

Oil Drain Adapter T 40057 (2.0 TFSI)



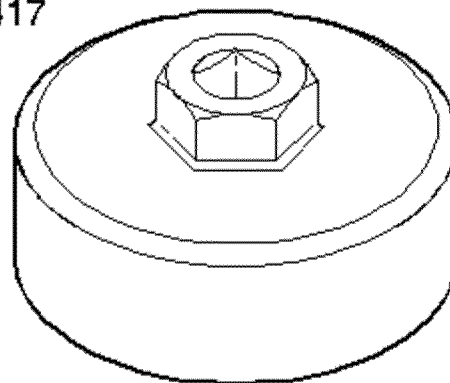
Note

V.A.G 1782



W00-10211

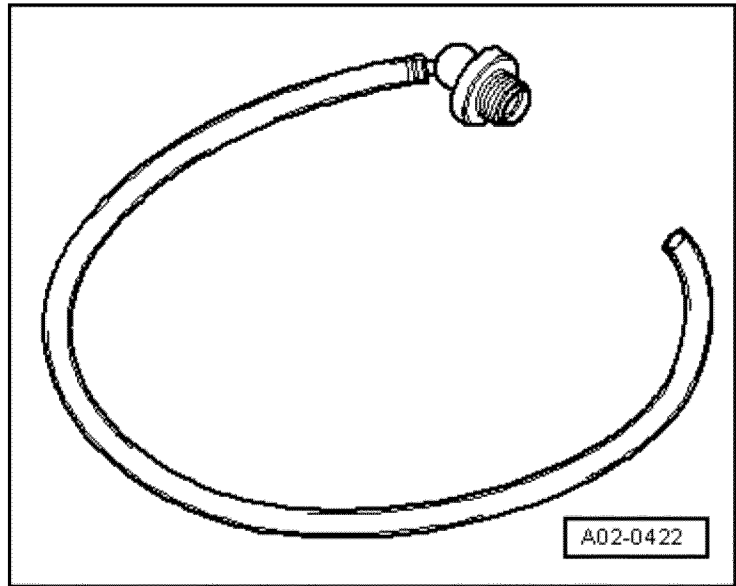
3417



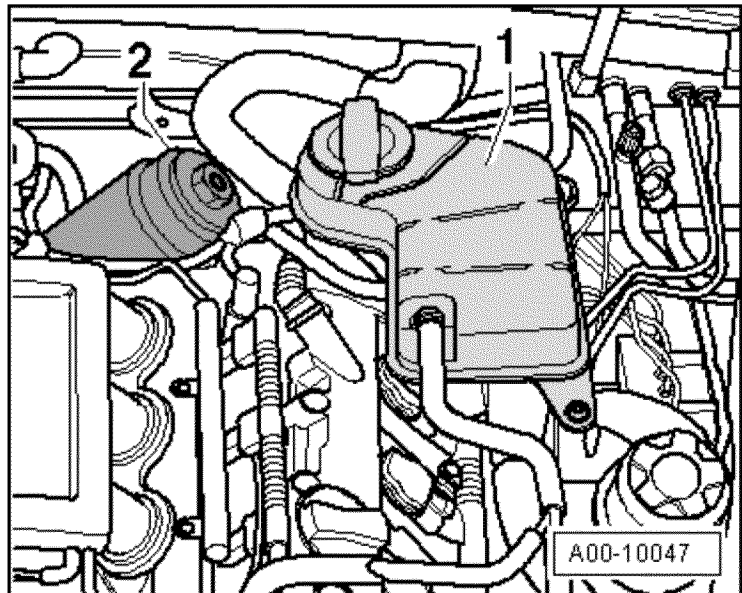
W00-0408

Observe waste disposal regulations!

V6 3.0L TFSI and 3.2L FSI

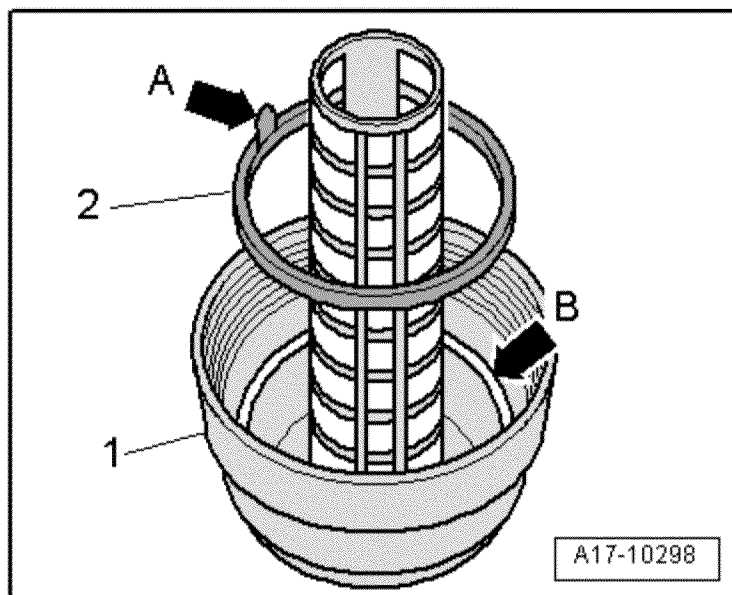


- Remove coolant reservoir 1 and lay aside.
- Remove oil filter cover with SW 3622.
- Clean sealing surfaces oil filter cover and at oil filter housing.
- Replace oil filter insert.



Sealing ring on cap, replacing

- Remove sealing ring at pull tab 1 arrow A from cap 1.
- Insert new sealing ring 2 with semicircular profile in groove 1 arrow B on cap.
- 1 The pull tab 1 arrow A must face upward.
- 1 Smooth side of sealing ring 2 must face toward outside



O-ring, inserting in oil filter housing

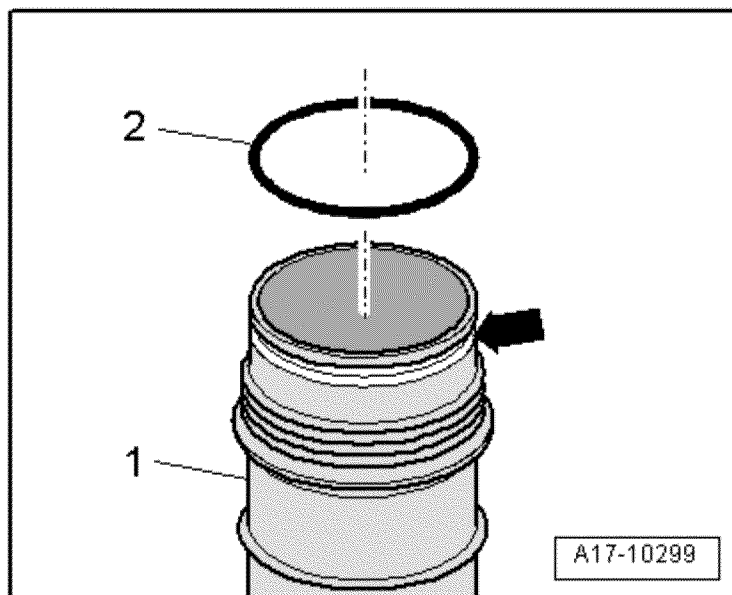
- Insert O-ring (2) in groove (arrow B) on oil filter housing (1).



Note

Observe waste disposal regulations!

- Engage new oil filter insert in oil filter cover.
- Install oil filter cover (3).
- Install coolant reservoir.
- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug on oil pan or extract engine oil.
- Install oil drain plug.



Note

Oil drain plug is installed without seal.

Check for cleanliness.


Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug on oil pan	30

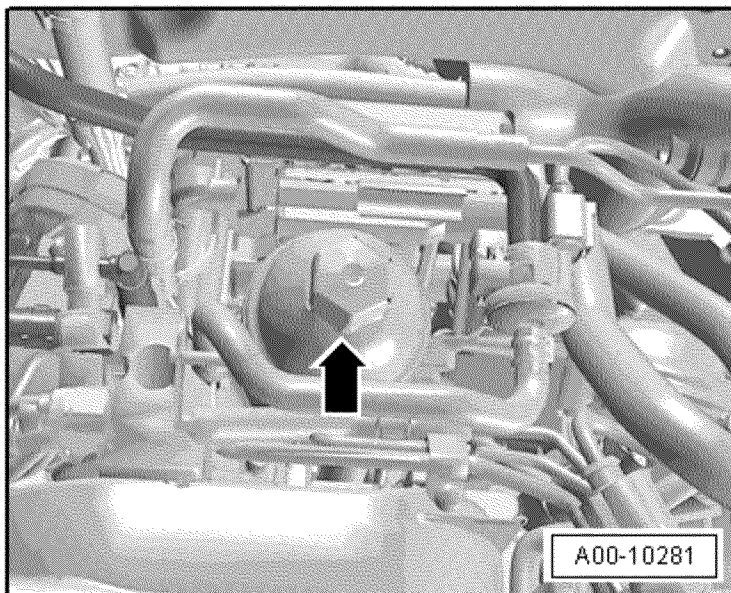
- Fill motor oil. Refer to → Chapter „Engine Oil, Filling“




For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;

V8 BVJ

- Remove the oil filter cover with a Socket Wrench SW 32 
- Clean sealing surfaces oil filter cover and at oil filter housing.



- Replace O-rings  and  and filter component 





Note

By removing the filter element, a valve is opened that allows the oil in the filter housing to flow automatically back into the crankcase.

Observe installation position of tab on oil filter.

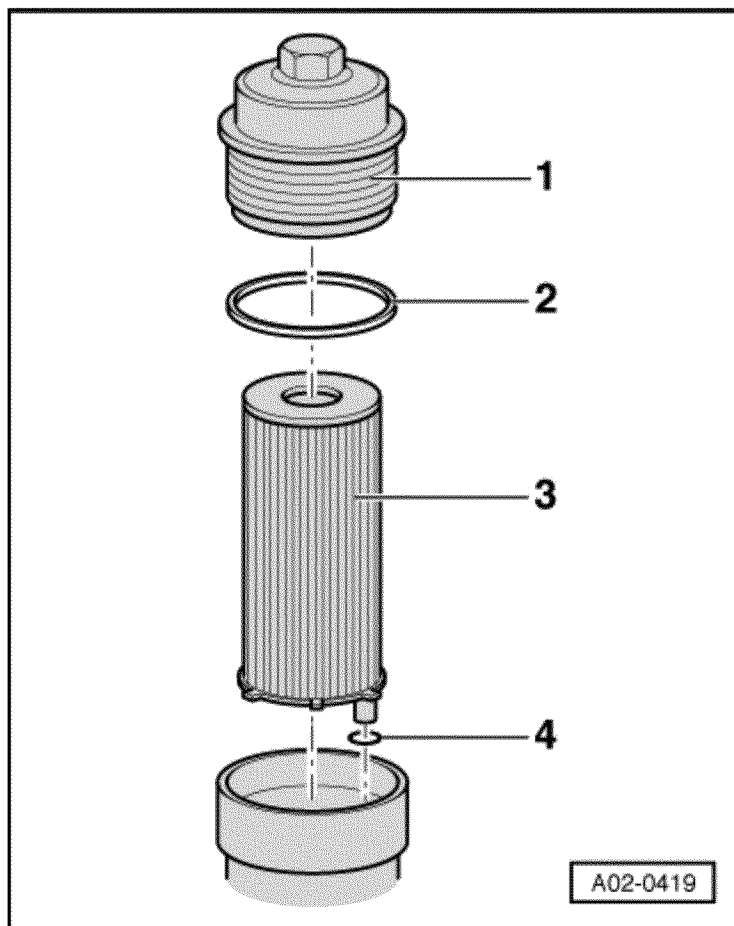
Observe waste disposal regulations!

- Insert new oil filter in filter housing
- Install new O-ring  and lubricate lightly.
- Install oil filter cover 
- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug on oil pan or extract engine oil.
- Install oil drain plug.



Note

Install oil drain plug with new gasket.



Check for cleanliness.


Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug on oil pan	25

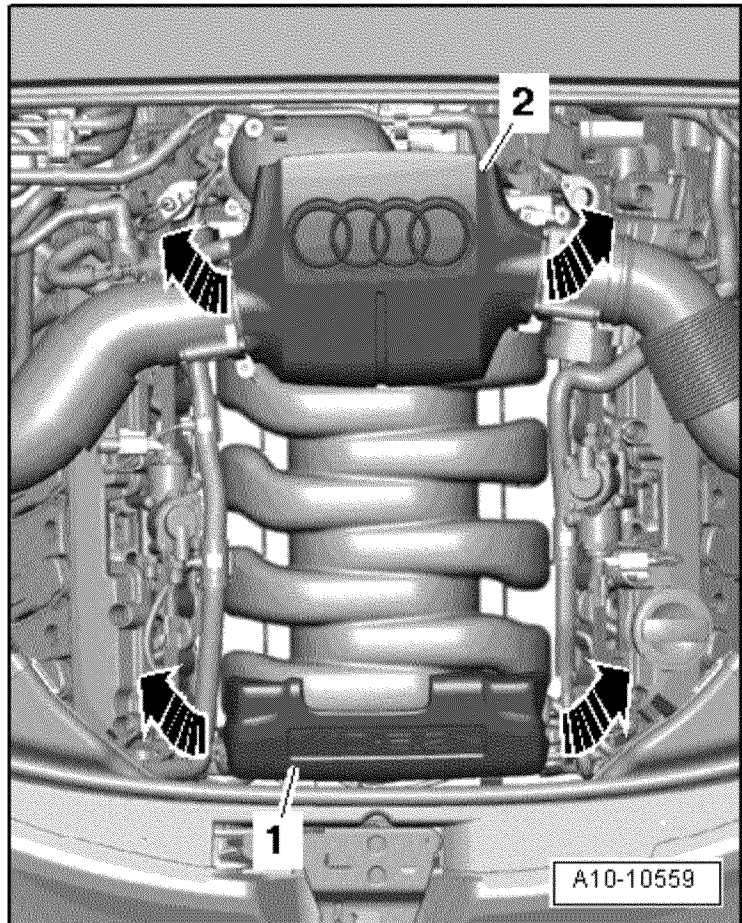
- Fill motor oil. Refer to → Chapter „Engine Oil, Filling“.

For oil specifications and capacities, refer to

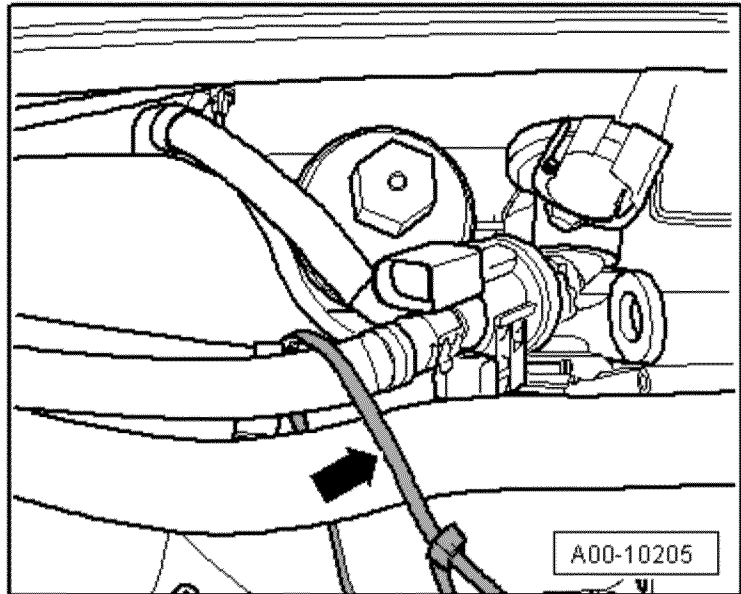
→ Fluid Capacity Tables; Rep. Gr.03;

5.2L FSI

- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“
- Open oil drain plug and drain engine oil.
- Install oil drain plug with new gasket.
- Remove rear engine cover 
- Remove EVAP valve from bracket and lay aside.



- Secure EVAP line, permanent ventilation line and sound pipe line at front with cable ties.



- Loosen cover 1 AF 32.
- Remove filter component 3
- Replace O-rings 2 and 4 and filter element 3

Observe installation position of tab on oil filter.

- Fill with engine oil.

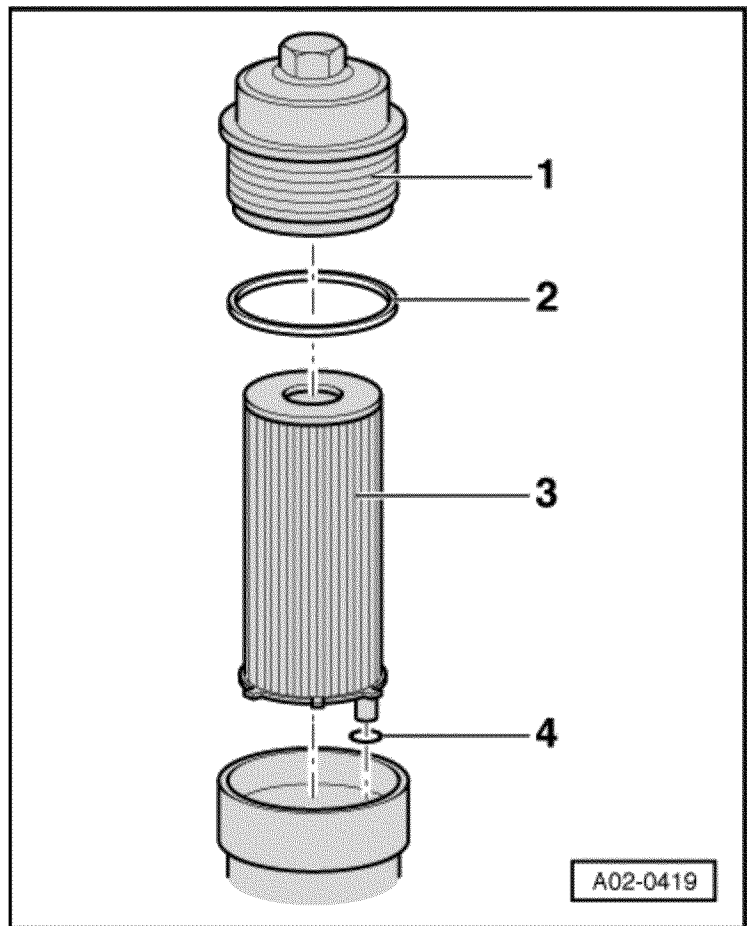
For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;



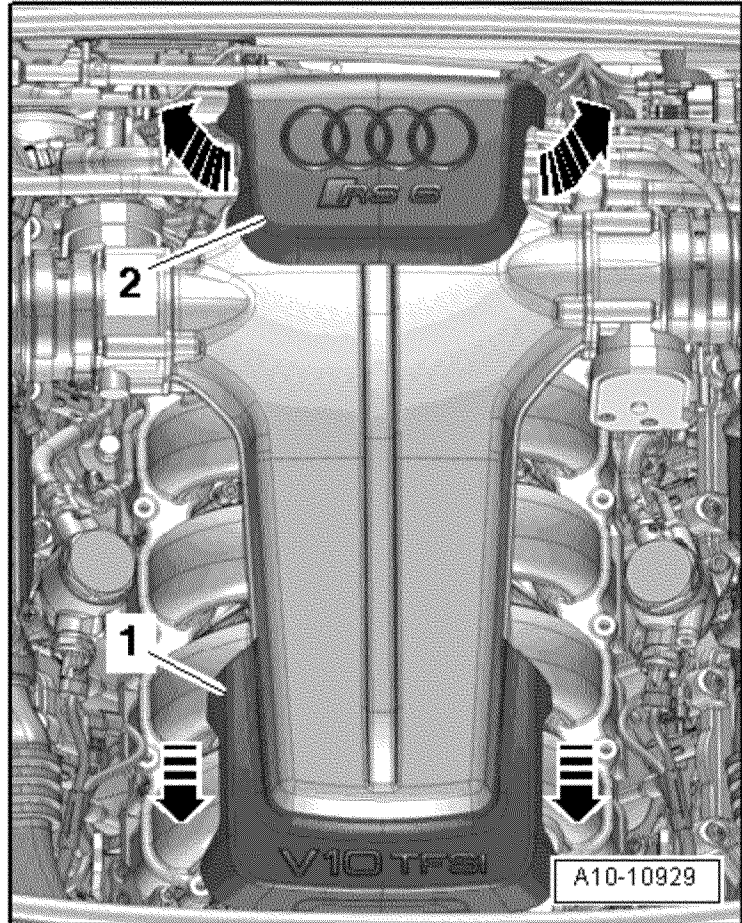
Note

Observe waste disposal regulations!



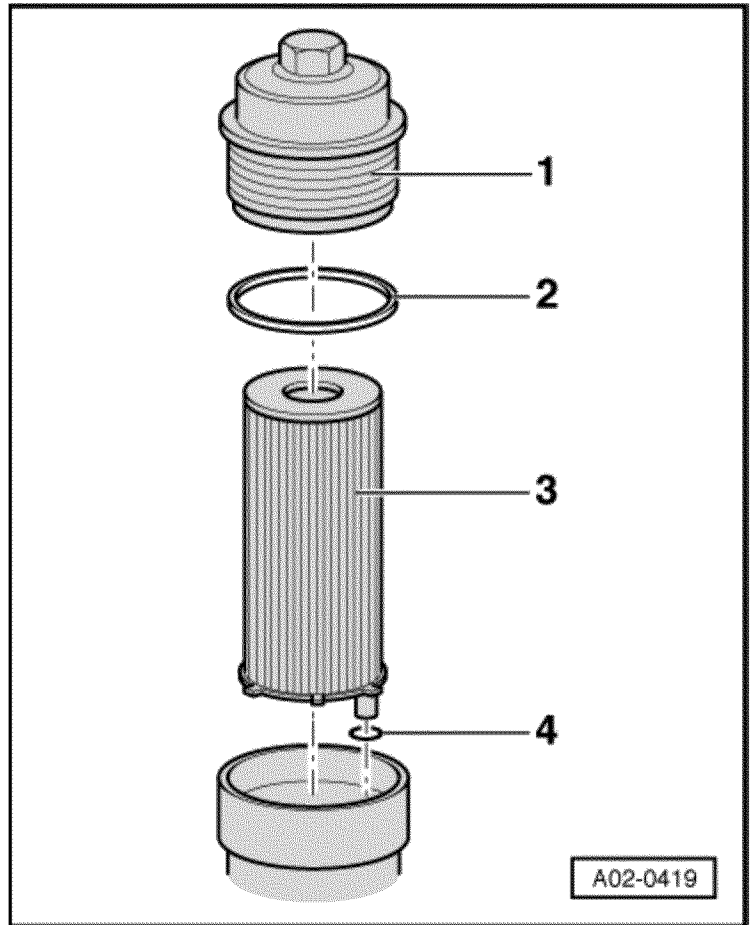
Tightening Specifications	Nm
Oil filter cover	25
Oil drain plug	25

V10 TFSI, RS 6

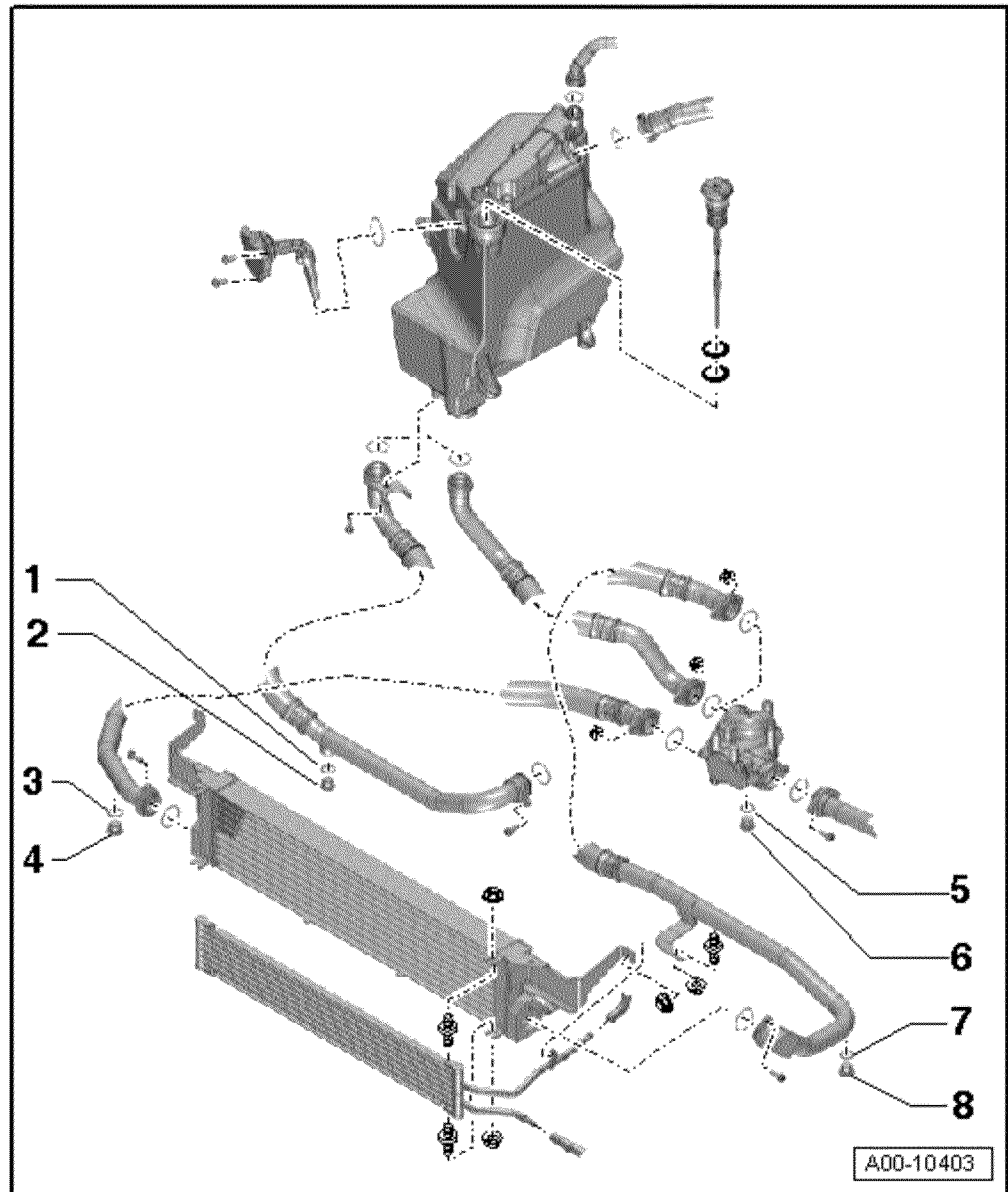



- Remove rear engine cover **2** toward the rear **arrows**.
- Free up the oil filter housing cover **1**.
- Loosen cover **1** **AF 32**.
- Remove filter component **3**.
- Replace O-rings **2** and **4** and filter element **3**.

Observe installation position of tab on oil filter.



- Remove noise insulation. Refer to → Chapter „Noise Insulation, Removing“



- Open the oil drain plugs 2, 4, 6 and 8 and drain the oil.
- Open oil drain plug  and drain engine oil.
- Install the oil drain plug with a new gasket.
- Remove any remaining oil the oil pan using an oil extractor 1782.

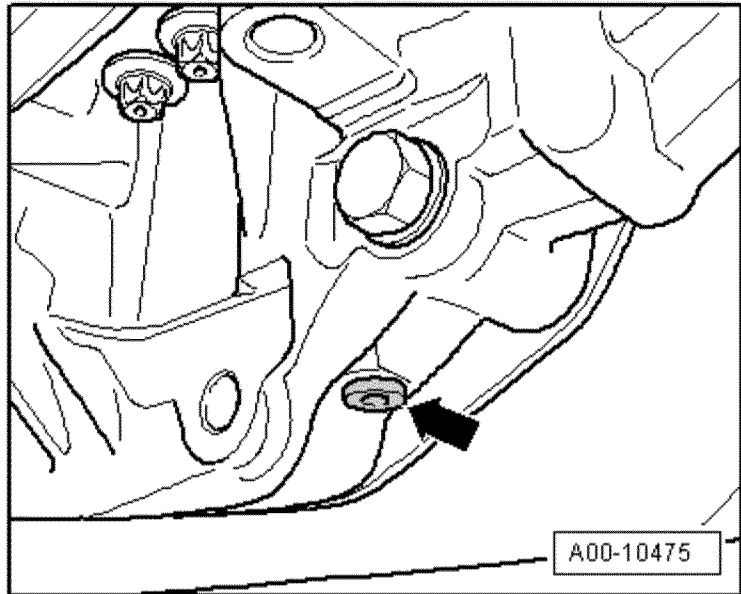

Note

The number of oil drain plugs will vary between 2 (only on the oil pipes) and 5 depending on the vehicle and engine versions.

**WARNING**

Pay attention to the tightening specifications.

Always pay attention to the instructions when filling the engine oil. Refer to → Chapter „Engine Oil Filling, RS 6“.



Tightening Specifications	Nm
Oil filter cover	25
Thermostat housing drain plug	25
Drain plugs on the oil tubes	40
Drain plug on the control housing	12 +/-0.5

- Fill the engine oil. Refer to → Chapter „Engine Oil Filling, RS 6“

For oil specifications and capacities, refer to

→ Fluid Capacity Tables; Rep. Gr.03;

**Note**

Observe waste disposal regulations!

Audi A6/S6



Caution

All quantities are approximate. Always refer to the Repair Manual and/or the Maintenance Procedures for correct filling instructions.

Refer to Technical Bulletin 2010043 for engine oils meeting the required Audi oil quality standards.

Part numbers are for reference only. Always check with your parts department for the latest information.

Component/System		Capacity	Part Number/Specification
3.2 L Engine			
	Oil and Filter Change	6.5 L (6.9 qt.)	VW 502 00
	Coolant	9.6 L (10.1 qt.)	G 012 A8G
4.2 L Engine			
	Oil and Filter Change	9.1 L (9.6 qt.)	VW 502 00
	Coolant	12.0 L (12.7 qt.)	G 012 A8G
5.2 L Engine			
	Oil and Filter Change	10.0 L (10.6 qt.)	VW 502 00
	Coolant	15.0 L (16.0 qt.)	G 012 A8G
Continuously Variable Transmission 01J			
	Initial Fill	7.5 L (7.9 qt.)	G 052 180 A2
	Refill	4.5 - 5.0 L (4.8 - 5.3 qt.)	
	Front Final Drive	1.3 L (1.4 qt.)	G 052 190 A2
6 Speed Automatic Transmission 09L			
	Initial Fill	9.8 L (10.3 qt.)	G 060 162 A2
	Refill	8.0 L (8.5 qt.)	

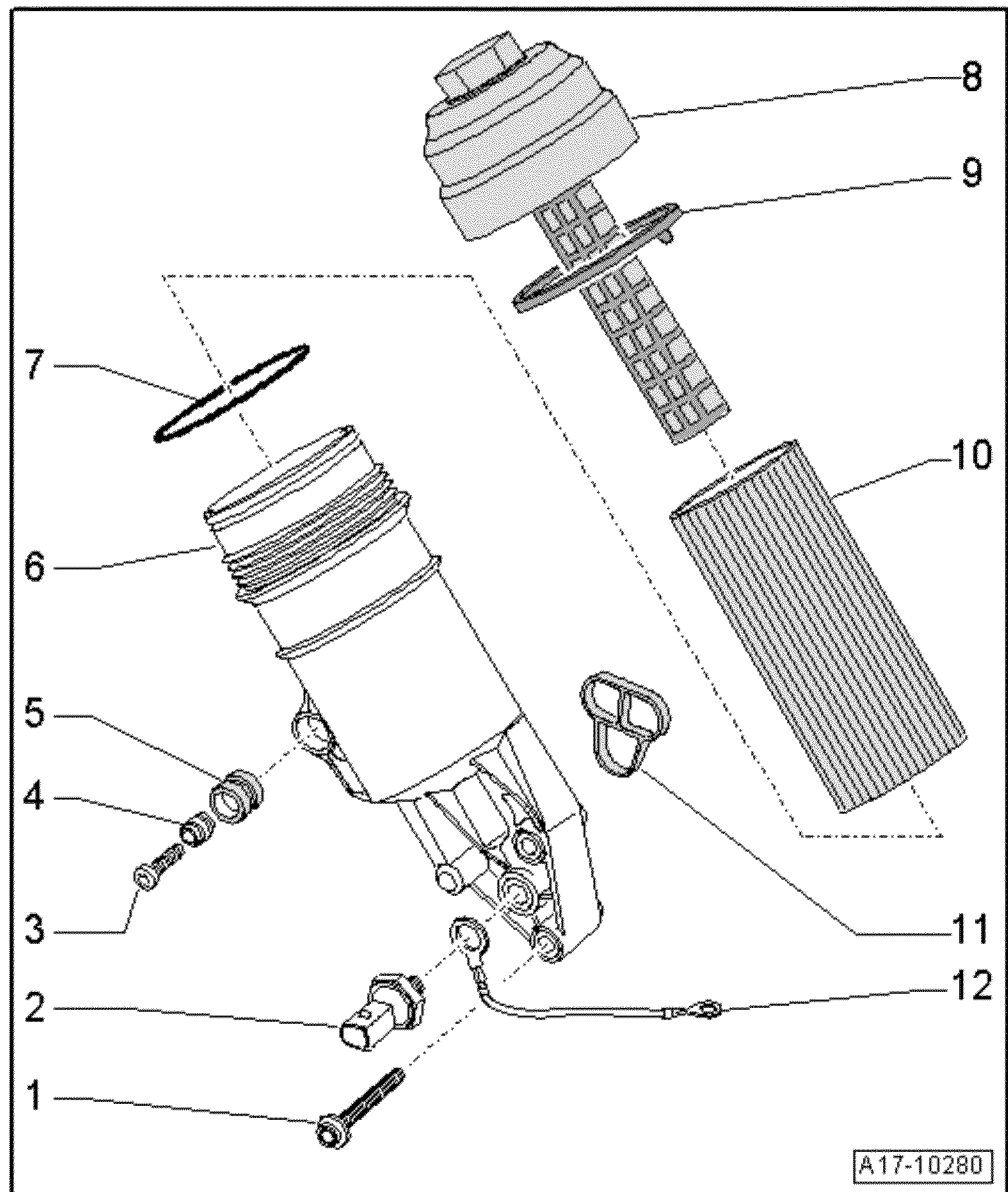
	Front Final Drive	1.1 L (1.2 qt.)	G 052 145 S2
	Transfer Case	0.6 L (0.6 qt.)	G 055 145 A2
	Rear Final Drive - 0AR	0.9 L (1.0 qt.)	G 052 145 S2
	Rear Final Drive - 01R	1.5 L (1.6 qt.)	
6 Speed Automatic Transmission 09E			
	Initial Fill	10.4 L (11.0 qt.)	G 055 005 A2
	Refill	10.0 L (10.6 qt.)	
	Front Final Drive	1.1 L (1.2 qt.)	G 055 145 S2
	Transfer Case	1.2 L (1.3 qt.)	
	Rear Final Drive - 0AR	0.9 L (1.0 qt.)	
	Rear Final Drive - 01R	1.5 L (1.6 qt.)	
Brake System			
	-	1.0 L (1.1 qt.)	G 000 750
A/C System			
	Refrigerant	530 ± 20 g (18.7 ± 0.7 oz.)	See ETKA
	PAG Oil	130 ± 10 cc (4.4 ± 0.3 fl. oz.)	G 052 300 A2
Window/Headlamp Washer System			
	-	4.8 L (5.1 qt.)	G 052 164

edition-061110

Oil Filter Housing Assembly Overview

Vehicles through 04.2005

- 1 - 13 Nm
- 2 - Oil pressure switch - F1-



Black insulation
checking → Chapter „Oil Pressure, Checking“
Removing and installing → Chapter
Tighten to 20 Nm.

- 3 - 13 Nm
- 4 - Sleeve
- 5 - Rubber grommet
- 6 - Oil filter housing

with filter bypass valve 3.0 bar
with oil check valve
Oil check valve cannot be replaced
Removing and installing → Chapter

7 - O-ring

Replace
inserting → Fig.

8 - Cover - 25 Nm

9 - Seal

Replace
Removing and installing → Fig.

10 - Oil filter element

Removing and installing

→ Booklet405

11 - Gasket

Replace

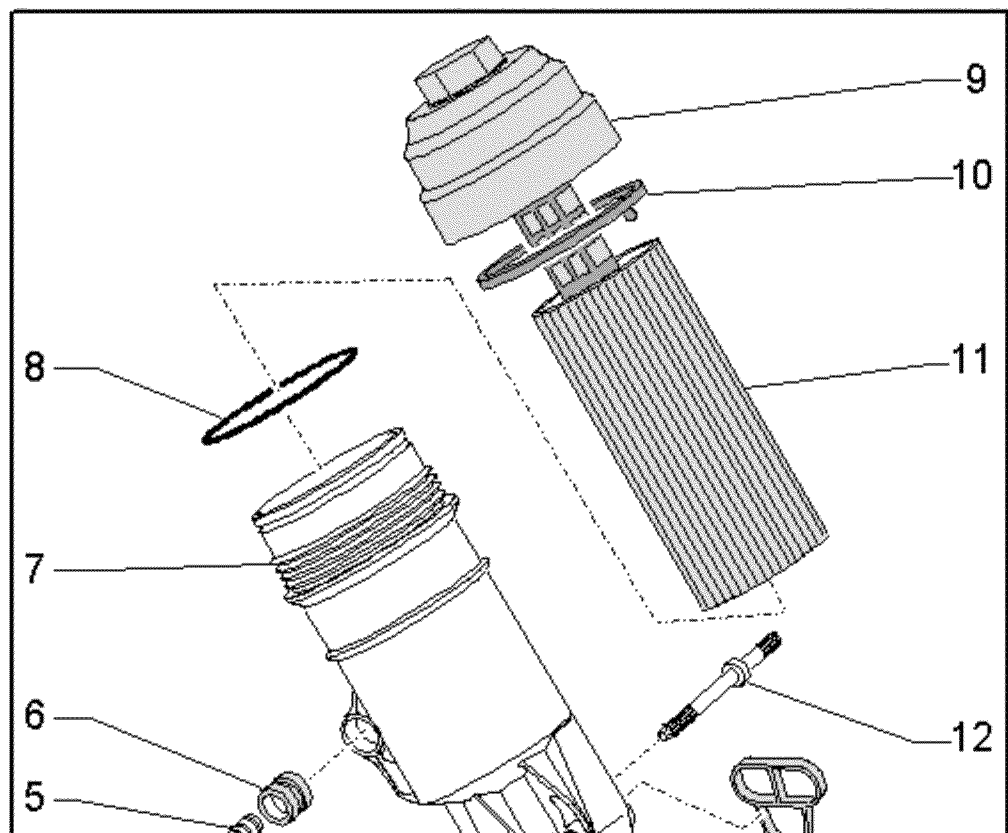
12 - Seal with ground (GND) wire

Replace

Vehicles from 05.2005

1 - 13 Nm

2 - Oil
pressure
switch -
F1-



Tighten to 20 Nm.

Black insulation

Removing and installing, refer to → Chapter „Oil Pressure Switch“

Checking → Chapter „Oil Pressure, Checking“

3 - Multi-point socket head union nut - 13 Nm

4 - 13 Nm

5 - Sleeve

6 - Rubber grommet

7 - Oil filter housing

With filter by&pass valve 3.0 bar

With oil check valve

Oil check valve cannot be replaced

8 - O-ring

Replace

Inserting, refer to → Fig. „O&ring, Inserting on Oil Filter Housing“

9 - Cover - 25 Nm

10 - Seal

Replace

Removing and installing, refer to → Fig. „Sealing Ring on Cap, Replacing“

11 - Oil filter element

Removing and installing, refer to

→ Booklet405

12 - Stud bolt - 16 Nm

13 - Gasket

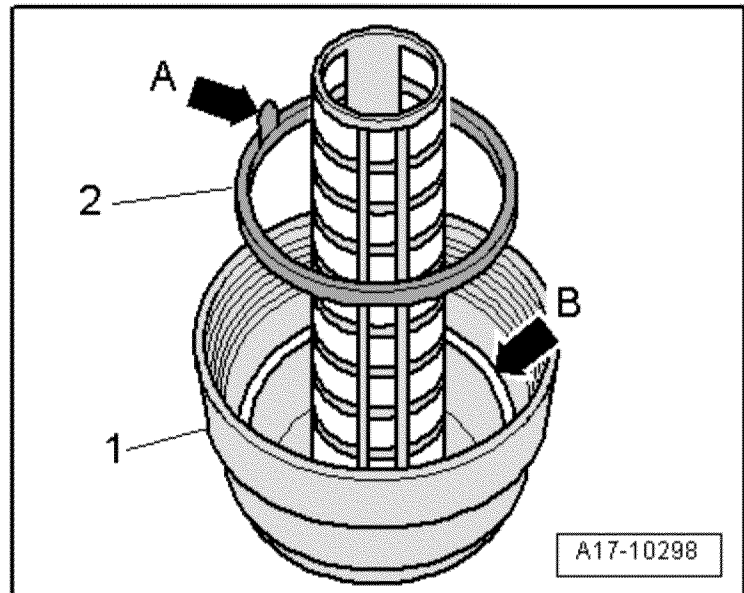
Replace

14 - Seal with Ground (GND) wire

Replace

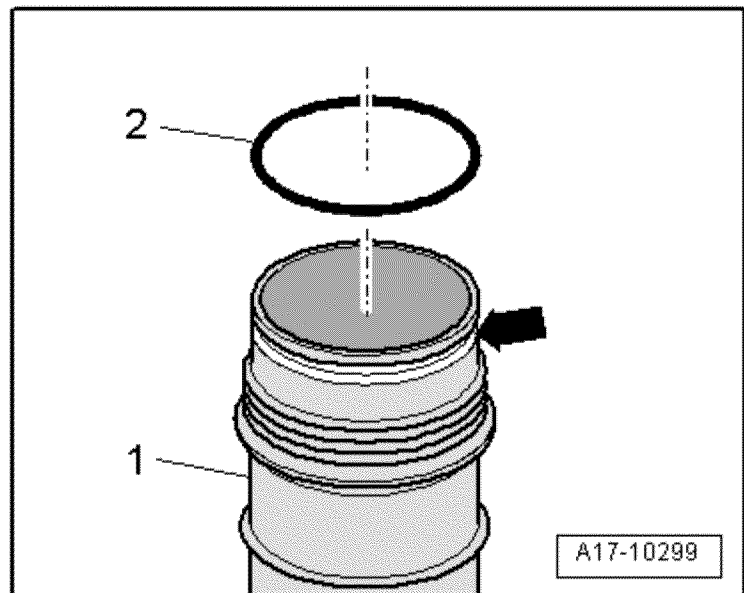
Sealing Ring on Cap, Replacing

- Remove sealing ring & at pull tab & from cap &.
- Insert new sealing ring with semicircular profile in groove & arrow B& on cap.
- 1 The pull tab & must face up.



O-ring, Inserting on Oil Filter Housing

- Insert O-ring (2) in groove (A) on oil filter housing (1).



Engine, Checking Oil Level

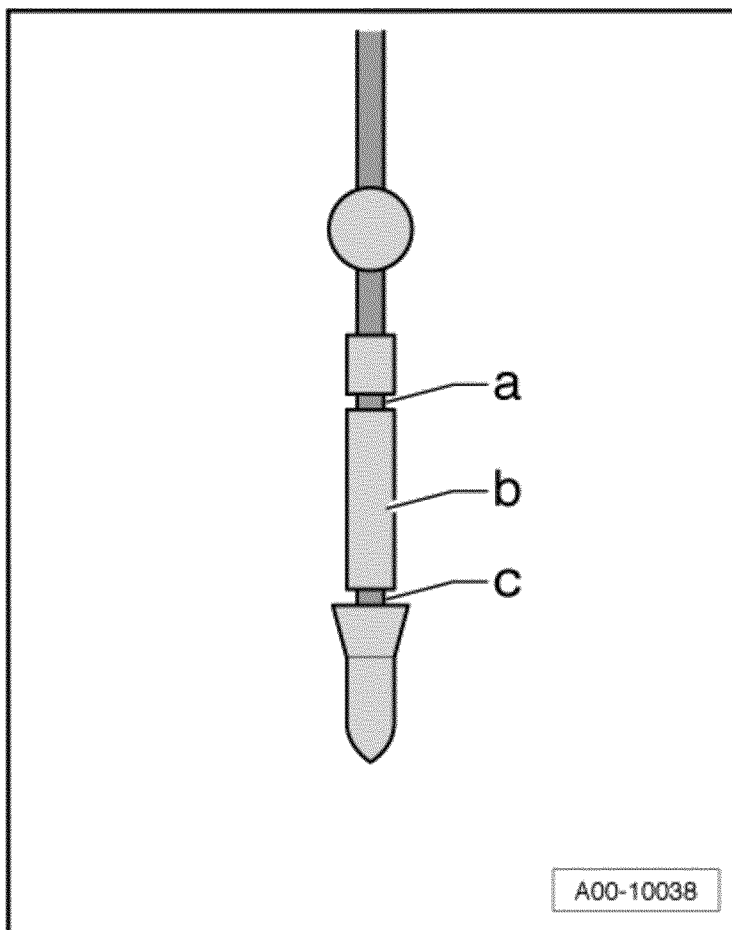
**NOTE**

Minimum engine oil temperature 140°F (60°C).

Vehicle must be in level position.

After stopping engine, wait a few minutes to allow oil to flow back into oil pan.

- Pull out oil dipstick and wipe with clean rag. Replace dipstick and push down to stop.
- Pull out dipstick again and read oil level.

Markings on dipstick:

- a - Oil must not be topped off.
- b - Oil can be topped off. This will cause the oil level to be in area -a-.
- c - Oil must be topped off. It is sufficient when oil level is in area -b- (grooved field).

**NOTE**

Oil level must not exceed -a- mark on dipstick.

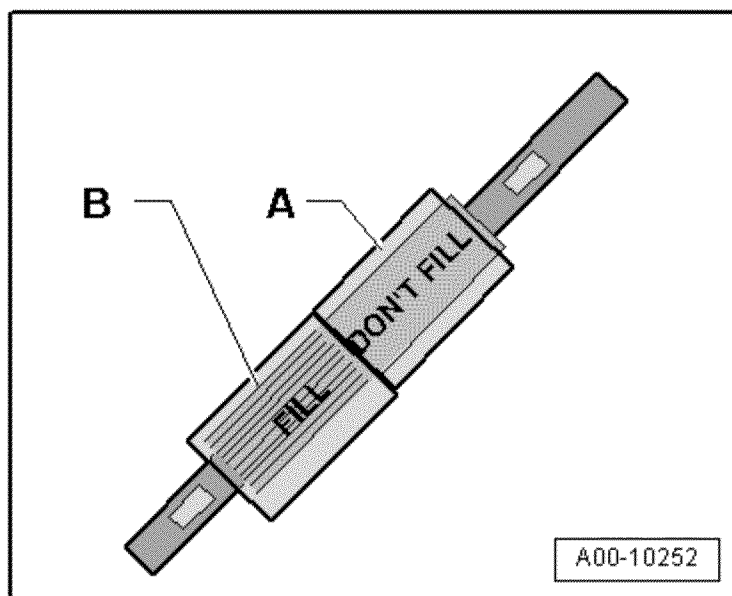
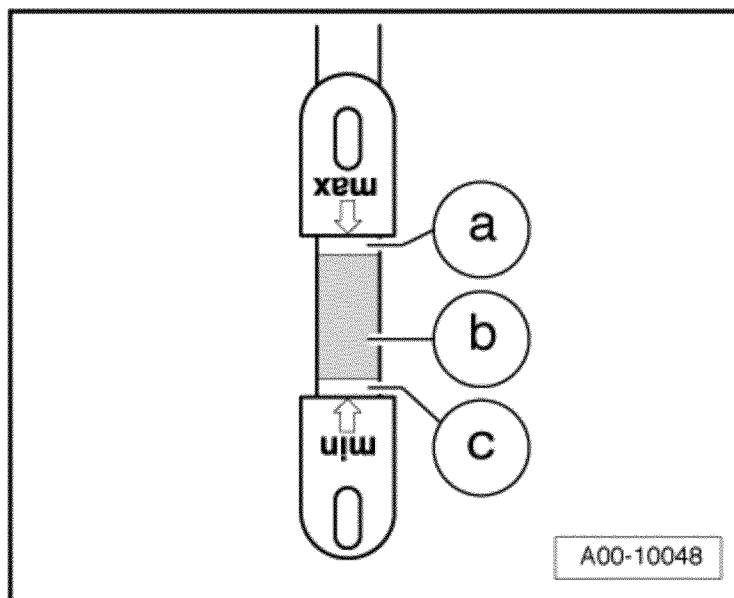
Checking Engine Oil Level, RS 6

- Follow these steps in sequential order.
- 1 Place the vehicle in a horizontal position.
- 1 Let the engine warm at different RPMs less than 2,500 RPM until the engine oil reaches a temperature of approximately 212 to 230 °F (100 to 110 °C) according to the instrument cluster. Refer to Owners Manual.
- 1 Let the engine run in idle for 3 minutes.
- 1 Switch off the engine and let the oil drain down for two minutes; then check the oil level within 10 minutes.
- 1 Add engine oil if necessary.
- 1 Oil level in the "B" range - add oil.
- 1 Filling capacity approximately 1 liter
- 1 The oil level can be within the "A" range.



NOTE

Add oil until the oil level is 5 mm below the upper edge of the "Do not Fill" range.



To: christoph.kohnen@vw.com;richard.thomas@vw.com;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; ichard.thomas@vw.com;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Cc: john.finneran@nhtsa.dot.gov;CN=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Jeff Alson/OU=AA/O=USEPA/C=US@EPA;alan.berkowitz@nhtsa.dot.gov;CN=Ben Ellies/OU=AA/O=USEPA/C=US@EPA;Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; N=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Jeff Alson/OU=AA/O=USEPA/C=US@EPA;alan.berkowitz@nhtsa.dot.gov;CN=Ben Ellies/OU=AA/O=USEPA/C=US@EPA;Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; N=Jeff Alson/OU=AA/O=USEPA/C=US@EPA;alan.berkowitz@nhtsa.dot.gov;CN=Ben Ellies/OU=AA/O=USEPA/C=US@EPA;Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; lan.berkowitz@nhtsa.dot.gov;CN=Ben Ellies/OU=AA/O=USEPA/C=US@EPA;Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; N=Ben Ellies/OU=AA/O=USEPA/C=US@EPA;Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; Harry.Thompson@dot.gov;terry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; erry.anderson@dot.gov;CN=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; N=Robert Peavyhouse/OU=AA/O=USEPA/C=US@EPA;CN=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]; N=Aaron Hula/OU=AA/O=USEPA/C=US@EPA[]
From: CN=David Good/OU=AA/O=USEPA/C=US
Sent: Thur 10/7/2010 4:09:41 PM
Subject: EPA CAFE letter & calculation attached - 2009 Volkswagen IP, LT
[2009-0590-LT-CAFE-V127.pdf](#)
[2009-0590-IP-CAFE-V127.pdf](#)

This e-mail message forwards a signed EPA letter and Corporate Average Fuel Economy (CAFE) calculation to your office.

CONFIDENTIALITY: The cover letter and the summary information on the "CAFE report" page are not confidential. However, the information included in the calculation section of the attached PDF file contain sales information in more detail than is normally available to competitors and to the general public. Release of the calculation section of this PDF file is not authorized.

This e-mail and the Adobe Acrobat (.pdf) attachment are an official Agency action. If there is a problem with the attachment or if you are not the intended recipient, please contact your certification team representative immediately. Adobe Acrobat Reader version 5.0 or later is required to open the attached PDF document(s).

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 10/8/2010 2:11:28 PM
Subject: RE: EPA's Confirmatory Maintenance Form
In-Use Parameters Form N001RXX-0043c-WAUAH78E18A040709.pdf
3.2CoolLeakCheck.pdf

Hello Lynn,

Attached is an update to the N001RXX-0043c car data.
The tank capacity is updated.

To answer your question concerning the radiator system:

Attached is the RM document for checking cooling system leaks. The purpose of the test performed at EPA are to verify that the cooling system is properly sealed and functioning per manufactures specs. This procedure does that.

If you have further questions on that please contact me.

Sebastian Berenz

Manager In-Use Emission Compliance
Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, October 07, 2010 9:59 AM
To: Berenz, Sebastian
Subject: RE: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

We noticed that the pressure for the radiator cap is higher than that for the radiator system. This is the opposite of what we usually see because most manufacturers want the radiator to release pressure before the radiator system. I just wanted to confirm that this is correct.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>

To: Lynn Sohacki/AA/USEPA/US@EPA

Date: 09/22/2010 09:35 AM

Subject: RE: EPA's Confirmatory Maintenance Form

Hello Lynn,

Attached you will find your questionnaire with my added details.

Further I have attached a description for the oil change, specifications for the oil and coolant and how to change the filter.

Let me know if you have any questions on this or need something additionally.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Wednesday, September 22, 2010 8:26 AM

To: Berenz, Sebastian

Subject: Fw: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

I will need the information for the maintenance very soon. Also, I need to know what the maintenance schedule says regarding oil changes. Do you have a copy of the page from the owner's manual that you can send me?

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 09/22/2010 08:24 AM -----

From: Lynn Sohacki/AA/USEPA/US

To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>

Date: 08/25/2010 04:20 PM

Subject: EPA's Confirmatory Maintenance Form

Hi, Sebastian.

Attached is the form that we use during maintenances for vehicles in a confirmatory class. There are a few items that I need you to provide.

I've indicated those things in red. Please fill in the blanks and return the file to me. Please also let me know if you have any questions.

In case you are interested in seeing the telephone questionnaire, I've attached that as well.

Thanks,

Lynn Sohacki
Environmental Protection Agency

734-214-4851
734-214-4869 (fax)

(See attached file: N001c-002c TELEPHONE QUESTIONNAIRE.doc)(See attached file: N001 maintenance before FTP.doc)

(See attached file: N001 maintenance before FTP.doc)(See attached file: FilterReplaceProc.pdf)(See attached file: FluidCapacity.pdf)(See attached file: OilFilterAssem.pdf)(See attached file: OilLevelCheck.pdf)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

Cooling System, Checking for Leaks

Special tools and workshop equipment required

Cooling system tester -V.A.G 1274-

Adapter -V.A.G 1274/8-

Adapter -V.A.G 1274/9-

Procedure

- 1 Engine at operating temperature.



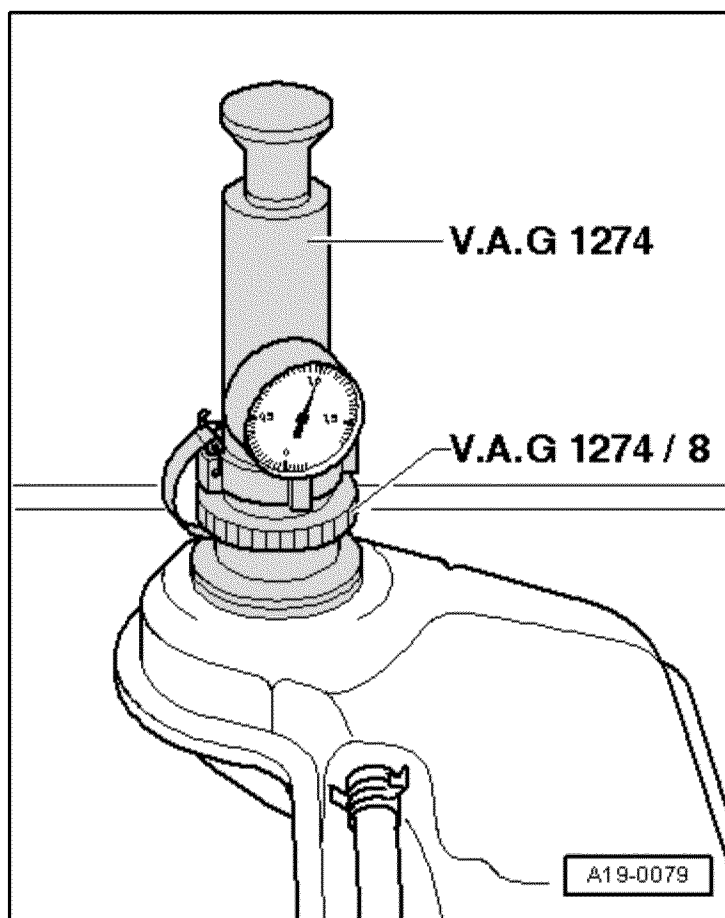
WARNING

Cover cap of expansion tank with rag and open carefully, as hot steam i.e. hot coolant may escape when opening.

- Open cap of coolant expansion tank.
- Position cooling system tester - V.A.G 1274- with adapter - V.A.G 1274/8- on expansion tank.
- Generate a positive pressure of approximately 1.0 bar using hand pump of cooling system tester.

If pressure drops:

- Search for leaking areas and repair malfunction.



Pressure relief valve in cap, checking

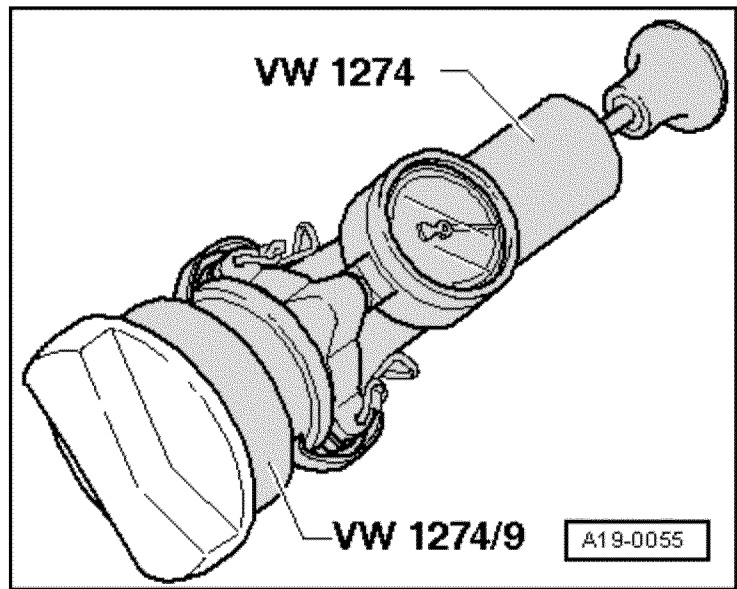
- Position cooling system tester - V.A.G 1274- with adapter - V.A.G 1274/9- on cap.
- Generate a positive pressure using

hand pump of cooling system tester.

- 1 The pressure release valve must open at a positive pressure of 1.4 to 1.6 bar.

If check-valve does not open as indicated:

- Replace cap.



To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Mon 10/11/2010 12:13:33 PM
Subject: Request
[2010-10-11_11-03-38.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Please see attached a letter from Volkswagens Group of America.

It describes what the colleagues from Germany request.

If there are any questions occurring, please do not hesitate to contact me.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

VOLKSWAGEN

GROUP OF AMERICA

Ms. Lynn Sohacki
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
2000 Traverwood Road
Ann Arbor, Michigan 48105

Dr. Christoph Kohnen Name
Director Title
EEO Department
248-754-4201 Phone
248-754-4207 Fax
christoph.kohnen@vw.com E-Mail

October 8, 2010 Date

VOLKSWAGEN GROUP OF AMERICA, INC
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

Subject: Request for Approval of Additional Preconditioning – Test Group 8AD XV03.1374

Dear Ms. Sohacki:

Volkswagen Group of America, Inc. (Volkswagen) has been informed that the U.S. Environmental Protection Agency will conduct in-use surveillance testing on a number of 2008 model year vehicles in Test Group 8AD XV03.1374. Volkswagen respectfully requests that EPA grant approval for additional preconditioning.

Volkswagen recognizes that EPA has allowed for additional sulfur preconditioning applicable to in-use testing of NLEV and Tier 2 vehicles. The provisions for such allowance are described in Manufacturer's Guidance Correspondence C1SD-06-04, dated April 6, 2006.

In addition, Volkswagen had requested, in the past, additional preconditioning for certain 2003 model year 2.0L vehicles certified to the California SULEV emission standards. The basis for this request was that additional time is required for the fuel control loop on these vehicles to adapt to the fuel quality and operating conditions specified in the regulations for in-use testing.

Volkswagen is requesting additional preconditioning for vehicles in 2008 model year Test Group 8AD XV03.1374 on the following basis.

Rational

Fuel sulfur levels were reduced concurrent with the adoption of Tier 2 regulations. Most gasoline refiners were required to meet a 30 parts per million (ppm) refinery average and an 80 ppm per-gallon cap in 2006. However, there are a few refineries that have a few more

years to meet the standards as a result of program flexibilities (e.g., small refineries). Since sulfur accumulates on the catalyst and reduces the active surface for catalytic conversion, emission results may increase slightly above expected values. However, sulfur can be removed by heating up the catalyst above a certain temperature over a limited period of time. These conditions can be met by performing a USO6 driving cycle prior to initial emission testing.

To evaluate the impact of sulfur accumulation and desulfuring driving, VWGoA recently performed emission testing on in-use vehicles of this test group.

The Preferred Procedure had 3 Steps

- First, test each vehicle as received with in-use fuel from the pump, refilled by the customer. There were 2 cars with sufficient fuel for testing.
- Second, drain and refill with certification fuel and test FTP75.
- Third perform USO6 as a preconditioning drive and retest FTP75.

Results

One vehicle did perform below the standards with in-use fuel and did not improve after USO6 driving. Therefore, we conclude that this vehicle did not experience any sulfur residuals at the testing point.

VIN#	Model	Engine	Transmi ssion	Mileage	NMOG [% of Std.]	CO [% of Std.]	Nox [% of Std.]	comment
Ex. 6	A6	3.2l FSI	Atq	49767	61.4	17.2	44.4	in-use fuel as received
	A6	3.2l FSI	Atq	49793	91.8	22.1	49.0	Cert fuel
	A6	3.2l FSI	Atq	49828	68.9	18.7	26.4	cert fuel after USO6 Prep.

One vehicle did perform above the standards with in-use fuel and did improve after cert fuel testing and as of USO6 driving. Emission data lead to the assumption, that this vehicle might have sulfur residuals, which could be removed.

VIN#	Model	Engine	Transmi ssion	Mileage	NMOG [% of Std.]	CO [% of Std.]	Nox [% of Std.]	comment
Ex. 6	A4	3.2l FSI	Atq	12386	110.1	25.4	13.0	in-use fuel as received
	A4	3.2l FSI	Atq	12412	94.8	18.8	17.8	Cert fuel
	A4	3.2l FSI	Atq	12445	78.6	19.6	8.2	cert fuel after USO6 Prep.

Two vehicles also improved after preconditioning with USO6 driving. Emission data led to the assumption, that these vehicles might have sulfur residuals, which could be removed.

VIN#	Model	Engine	Transmi ssion	Mileage	NMOG [% of Std.]	CO [% of Std.]	Nox [% of Std.]	comment
Ex. 6	A6	3.2l FSI	Atq	53381	124.0	28.1	48.0	Cert fuel
	A6	3.2l FSI	Atq	53415	84.7	23.9	32.9	cert fuel after USO6 Prep.

VIN#	Model	Engine	Transmi ssion	Mileage	NMOG [% of Std.]	CO [% of Std.]	Nox [% of Std.]	comment
Ex. 6	A6	3.2l FSI	Atq	57657	98.9	23.9	23.9	Cert fuel
	A6	3.2l FSI	Atq	57691	75.3	21.7	11.9	cert fuel after USO6 Prep.

Conclusion

Testing indicates that in-use fuel with higher sulfur content than certification fuel is still available for customer use. Test data show that, in general, USO6 driving does not improve emission results. Test data indicate that increased HC emissions induced by undesirable sulfur residuals on the catalytic surface are removable under USO6 driving conditions.

To evaluate the emission performance of this Test Group it is indicated to remove the sulfur residuals before testing.

Request

Volkswagen is requesting USO6 cycle preconditioning driving for vehicles in 2008 model year Test Group 8AD XV03.1374 prior to the first confirmatory test of each vehicle.

If there are any questions regarding this request, please contact Mr. Sebastian Berenz of my staff at (249) 754-4211.

Sincerely,
VOLKSWAGEN GROUP OF AMERICA, INC.



Dr. Christoph Kohnen
Director
Engineering and Environmental Office

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Mon 10/11/2010 12:24:35 PM
Subject: RE: In-use vehicles scheduled for next week
[In-Use Parameters Form N001RXX-0018C.pdf](#)
[In-Use Parameters Form N001RXX-0055C.pdf](#)

Hello Lynn,

Attached you will find the requested data for the next two cars.
We will be in Ann Arbor for the inspections as usually.

Please let me know if something changes.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, October 07, 2010 9:13 AM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N001RXX-0055C (2008 Audi/A6) - VIN# Ex. 6 1000 vehicle pick up on 10/13/10
(Wednesday)

N001RXX-0018C (2008 Audi/A4) - VIN# Ex. 6 0830 vehicle pick
up on 10/14/10 (Thursday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Tue 10/12/2010 12:59:54 PM
Subject: request detailed test procedure
[2010-10-12_11-59-41.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Attached you will find another request from Volkswagen for the ongoing confirmatory program.

If there are any questions, please contact me.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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VOLKSWAGEN

GROUP OF AMERICA

Ms. Lynn Sohacki
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
2000 Traverwood Road
Ann Arbor, Michigan 48105

Dr. Christoph Kohnen Name
Director Title
EEO Department
248-754-4201 Phone
248-754-4207 Fax
christoph.kohnen@vw.com E-Mail

October 12, 2010 Date

Subject: Request for approval of a revised vehicle preparation and preconditioning procedure for Test Group 8AD XV03.1374

Dear Ms. Sohacki:

Volkswagen Group of America, Inc. (Volkswagen) has been in contact with the U.S. Environmental Protection Agency regarding the in-use performance of Test Group 8AD XV03.1374. The current status is that the EPA will conduct in-use confirmatory testing on a number of 2008 model year vehicles in this test group. Volkswagen continues to investigate this engine family.

Volkswagen recognized while inspecting the first car (N001RXX-0043c) at EPA's laboratory, that the fuel drain and refill procedure created fault codes and pending codes which were not present when the car first arrived for vehicle preparation prior emission testing. The fault codes and impending codes are attributed to the current drain and fill practice at the EPA laboratory where the vehicle is drained of fuel with the engine running. The fuel tank is then considered empty when the engine stalls. Following the engine stall event, the vehicle is not immediately refilled with fuel. This introduces air in the fuel system. Several subsequent engine starts with air in the fuel system leads to the discussed fault codes. In addition, Volkswagen believes when observing the preparation of vehicle N001RXX-0043c that numerous starts with air still retained in the fuel system caused adaption values that deviated from normal.

Volkswagen recommends that the preparation and preconditioning procedure be revised to eliminate potential non representative emission results. We recommend that the vehicle be immediately refilled with at least one gallon of certification fuel after the engine stall event and that the engine be started and idled for five minutes. This should minimize the negative effect of air trapped in the fuel system. In addition, Volkswagen recommends that an additional cold start FTP-72 be added as a preconditioning cycle to ensure the air is fully purged from the fuel system and the vehicle is properly adapted. A detailed flowchart is attached with our recommended changes highlighted.

Volkswagen respectfully requests to adopt this detailed procedure.

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

VOLKSWAGEN

GROUP OF AMERICA

If there are any questions regarding this request, please contact Mr. Sebastian Berenz of my staff at (249) 754-4211.

Sincerely,
VOLKSWAGEN GROUP OF AMERICA, INC.



Dr. Christoph Kohnen
Director
Engineering and Environmental Office

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

detailed testing procedure

Contractor at EPA shop

Begin of first day
before 10 am

EPA laboratory

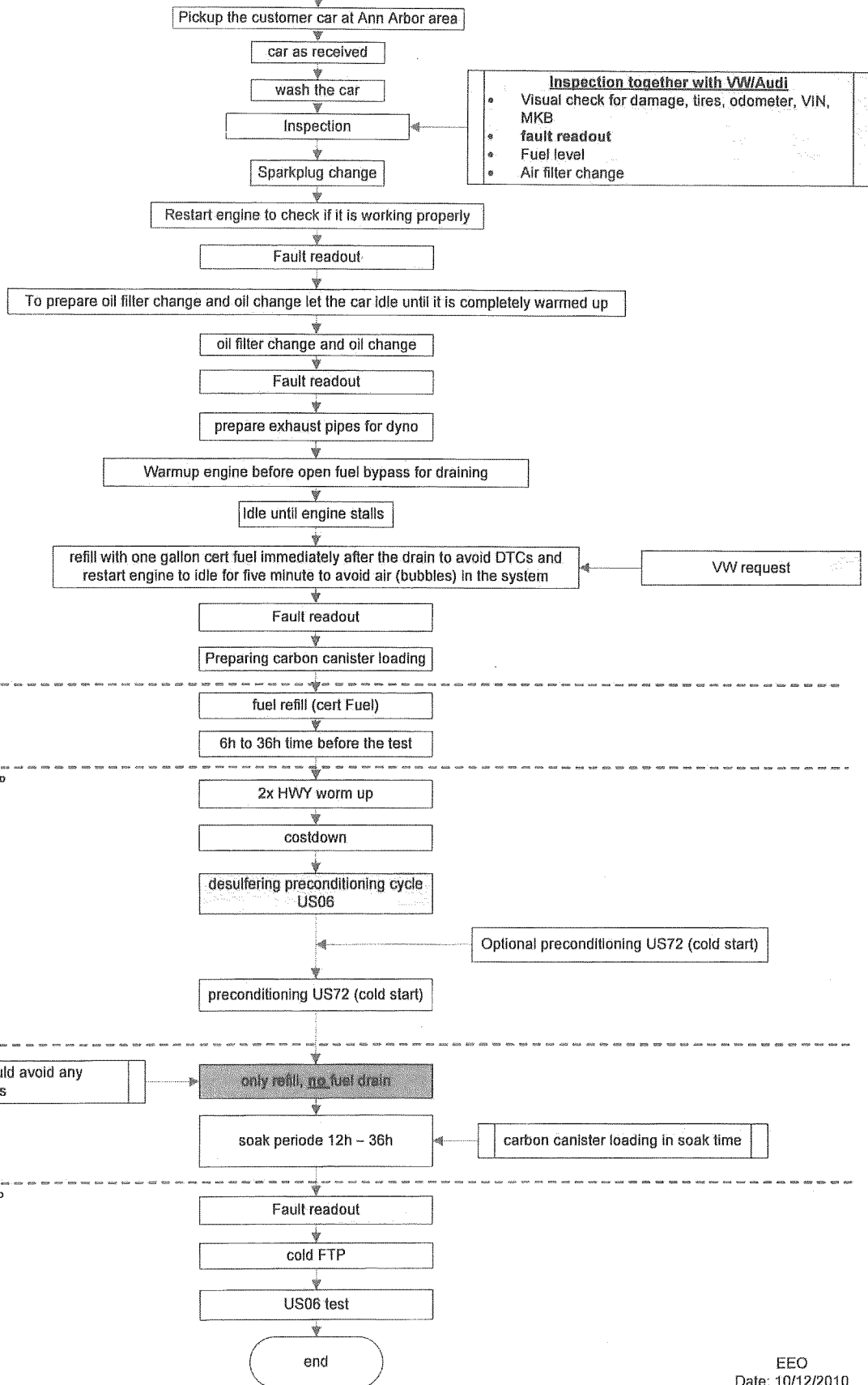
Begin of first day on the dyno

EPA laboratory tests

End of first day on the dyno

Soak time

Begin of last day on the dyno



To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
From: "Banzer, Mark (I/EA-153)"
Sent: Thur 10/14/2010 2:07:12 AM
Subject: readouts
[Readout A4 32FWD EPA_20011006 at arrival.txt](#)
[Readout A4 32FWD EPA_20011013 after coldstartadaptation.txt](#)
[Readout A4 32FWD EPA_20011006 after drain and refill.txt](#)
[Readout A4 32FWD EPA_20011006 after maintenance.txt](#)
<mailto:mark.banzer@audi.de>
<http://www.audi.com>

Hi Lynn,

as requested I send you the readouts of the A4 3.2 0043C from last week and today. I renamed them, so you can easily find out when the readout was taken.

<<Readout A4 32FWD EPA_20011006 at arrival.txt>> <<Readout A4 32FWD EPA_20011013 after coldstartadaptation.txt>> <<Readout A4 32FWD EPA_20011006 after drain and refill.txt>> <<Readout A4 32FWD EPA_20011006 after maintenance.txt>>

Mit freundlichen Grüßen

Mark Banzer

Abgasentgiftung, Lambdaregelung

AUDI AG

I/EA-153

Thermodynamik/Applikation V6 FSI

85045 Ingolstadt

Tel.: +49 (0)841 89-56654

Fax: +49 (0)841 89-38831

<mailto:mark.banzer@audi.de>

<http://www.audi.com>

Sitz/Domicile: Ingolstadt

Registergericht/Court of Registry: Amtsgericht Ingolstadt

HRB Nr./Commercial Register No.: 1

Vorsitzender des Aufsichtsrats/Chairman of the Supervisory Board: Martin Winterkorn

Vorstand/Board of Management: Rupert Stadler (Vorsitzender/Chairman), Ulf Berkenhagen, Michael Dick, Frank Dreves, Peter Schwarzenbauer, Thomas Sigi, Axel Strotbek

Wichtiger Hinweis: Die vorgenannten Angaben werden jeder E-Mail automatisch hinzugefügt und lassen keine Rückschlüsse auf den Rechtscharakter der E-Mail zu.

Important Notice: The above information is automatically added to this e-mail. This addition does not constitute a representation that the content of this e-mail is legally relevant and/or is intended to be legally binding upon AUDI AG.

Datum: 06.10.2010 19:31:44

Steuergerät

01 7E0 7E8 Motorelektronik

Diagnosedatensatz: VAG\SG\EV_ECM30TFS021XS85_001

Steuergeräteidentifikation

Teilenummer: 8E1910559F
Konfiguration: 0060 programmierbar
Systembezeichnung: 3.2l V6 FSI
Gerätenummer: 64638
Importeursnummer: 444
Betriebsnummer: 02136
Lange Codierung: 0104010902070120
Hardwareteilenummer: 8E0907559J
Seriennummer: XXXXXXXXXXXXXXXX
Herstellerwerk: SME-RBG
Fertigungsdatum: 25.06.07
Änderungsstand: --H21--
Prüfstandnummer: 0394
Herstellernummer: 0442
Status des Flash: 0000 0000 1 1 0000 0000
Motor/Systemnummer: AUK
Fahrgestellnummer: **Ex. 6**

Fehlerspeicher

0 Fehler gespeichert

Messwerte

1	0 U/min	51.7 °C	0.0 %	0.0 %
2	0 U/min	0 %	19.31 ms	986.7 mbar
3	0 U/min	984.9 mbar	5.5 %	-0.0 °v.OT
4	0 U/min	12.138 V	51.7 °C	41.2 °C
5	0 U/min	0 %	0 km/h	
6	0 U/min	0 %	41.2 °C	-2.8 %
7				
8				
9	63.8 mm	48.0 mm	0	0
10	0 U/min	0 %	5.5 %	-0.0 °v.OT
11	0 U/min	51.7 °C	41.2 °C	-0.0 °v.OT
12				
13				
14	0 U/min	0 %	0	gesperrt
15	0	0	0	gesperrt
16	0	0	0	gesperrt
17				
18	0 U/min	0 U/min	0 %	0 %
19				
20	0.00 KW	0.00 KW	0.00 KW	0.00 KW

21	0.00 KW	0.00 KW		
22	0 U/min	0 %	0.00 KW	0.00 KW
23	0 U/min	0 %	0.00 KW	0.00 KW
24	0 U/min	0 %	0.00 KW	0.00 KW
25				
26	4.004 V	4.004 V	4.004 V	4.004 V
27	4.004 V	4.004 V		
28	0 U/min	0 %	51.7 °C	Test AUS
29				
30	___0 0100	___0100	___0 0100	___0100
31	1.00008	1.00008	1.00008	1.00008
32	2.1 %	2.9 %	-1.1 %	0.6 %
33	0.0 %	2.055 V	0.0 %	2.060 V
34	0 U/min	-33.0 °C	0.00977	Test AUS
35	0 U/min	-33.0 °C	0.03516	Test AUS
36	0.429 V	Test AUS	0.424 V	Test AUS
37	0 %	0.429 V	0.0 %	Test AUS
38	0 %	0.424 V	0.0 %	Test AUS
39	0.0 g/s	0.429 V	0.424 V	Test AUS
40				
41	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
42	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
43	0 U/min	-33.0 °C	0.429 V	aus
44	0 U/min	-33.0 °C	0.429 V	aus
45				
46	0 U/min	-33.0 °C	0.03907	Test AUS
47	0 U/min	-33.0 °C	0.02344	Test AUS
48				
49				
50	0 U/min	780 U/min	aus	Kompr. AUS
51	0 U/min	780 U/min	0	12.138 V
52				
53	0 U/min	780 U/min	12.138 V	0.0 Nm
54	0 U/min		0 %	5.5 %
55	0 U/min	0.0 Nm	29.9 Nm	___00 0000
56	0 U/min	780 U/min	0.0 Nm	___00 0000
57	0 U/min	780 U/min	Kompr. AUS	0.7 Nm
58	0 U/min	0 %	aus	
59				
60	15.3 %	85.5 %	0	ADP. i.O.
61	0 U/min	12.138 V	0.0 %	___00 0000
62	15.3 %	85.5 %	14.9 %	7.5 %
63	14.9 %	89.4 %		gelernt
64	0.527 V	4.510 V	0.781 V	4.251 V
65				
66	0 km/h	0000 1000	0 km/h	1000 0001
67		0000 1000		
68	0 U/min	0 %	0	WK auf
69				
70	0 %	0.0 %	0.0 %	Test AUS
71	Reed auf			Test AUS
72				
73				
74				
75				
76				

77				
78				
79				
80				
81				
82				
83				
84				
85	12700 km	54	298	1393
86	0000 0000	1111 1111	0001 1111	0001 1111
87	0000 0000	0000 0000	0000 0000	0000 0000
88	1100 1111	0010 1101	1100 1000	
89	0 km	i.O.		
90	0 U/min	0 %	0.00 KW	0.00 KW
91	0 U/min	0 %	0.00 KW	0.00 KW
92	0 U/min	0 %	0.00 KW	0.00 KW
93				
94	0.00 KW	0.00 KW	Test AUS	Test AUS
95	0.0 %	0.0 %	0.000 V	ADP. i.O.
96	0.00 KW	0.00 KW	Test AUS	Test AUS
97	0 U/min	0 %	984.9 mbar	aus
98	0 U/min	0 %	0.00 KW	0.00 KW
99	0 U/min	51.7 °C	0.0 %	aus
100	0000 0000	51.7 °C	0.0 s	1000 0001
101	0 U/min	0 %	19.31 ms	984.9 mbar
102	0 U/min	51.7 °C	41.2 °C	19.31 ms
103	5.96 bar	0.0 %	-3.8 %	aus
104	52.5 °C	2.3 %	0.8 %	0.8 %
105	0 U/min	0 %	51.7 °C	ein
106	5.96 bar	10 %		1.82 s
107	0 U/min	0.0 %	0.0 %	aus
108				
109				
110				
111				
112				
113	0 U/min	0 %	15.3 %	982.8 mbar
114				
115				
116				
117				
118				
119				
120	0 U/min	496.0 Nm	19.3 Nm	ASR n.aktiv
121				
122	0 U/min	496.0 Nm	19.3 Nm	kein Eingr.
123				
124				
125	Getriebe 1	ABS 1	Kombi 1	Klima 1
126		Lenkwink. 1	Airbag 1	
127			Lenkrad 1	
128				
129				
130				
131				
132				

133				
134	52 °C	11.2 °C	41.2 °C	51.7 °C
135		10 %		
136			aus	
137	aus	Kompr. AUS	6.80 bar	0 %
138	52.5 °C	0.0 g/s	0 km/h	Test AUS
139	75.6 °C	0.0 kg	0.0 kg	Test AUS
140	0 %	61.89 bar	4.60 bar	inaktiv
141	0.00 bar	0	0	3
142	100 %	100.0 %	0.014 V	ADP. i.O.
143				
144	100 %	100.0 %	0.000 V	ADP. i.O.
145				
146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				
161				
162				
163				
164				
165				
166				
167				
168				
169				
170	aus	aus	aus	aus
171				
172				
173				
174				
175				
176				
177				
178				
179				
180				
181				
182				
183				
184				
185				
186				
187				
188				

189				
190	51.7 °C	0 %	0 U/min	5 °DK
191				
192				
193				
194				
195				
196				
197				
198				
199				
200				
201	50 %	5	6.99 bar	2.490 V
202	2.9 %	0.6 %	0.0 %	0.0 %
203	0 U/min	0 %	19.31 ms	19.31 ms
204	65.53 kOhm	65.53 kOhm	-33.0 °C	Test AUS
205	12.0 %	0.0 %	100.0 %	
206	0 %	0.0 %	0 %	0.0 %
207	0000 0001	12460 km	12460 km	0000 0000
208	0	0	0	
209	0	0	803	gesperrt
210	0 U/min	0 %	0.0 mbar	0.00 KW
211	0.0 g/s	0.0 g/s		986.9 mbar
212	0 %	0.0 %	0 %	0.0 %
213	0 %	200 %	0.0 mbar	
214	0.4 %	-0.2 %	0.0 %	
215	0.27120	0.27044		
216	0.00000	0.00000	0	NA
217	0.00000	0.00000	0	NA
218	0.00	-0.59	-0.13	-0.82
219	-0.26	0.06	298	
220	-5.2 °C	-5.2 °C	9.7 °C	9.7 °C
221	24.0 °C	24.7 °C	31.5 °C	31.5 °C
222	41.2 °C	41.2 °C		
223				
224	0.4 %	0.5 %	-0.9 %	0.7 %
225	-1.0 %	0.3 %	0.0 °	0.0 °
226	12460 km	12460 km	-0.07 mg/h	0.08 mg/h
227	-0.01 mg/h	0.05 mg/h	-0.04 mg/h	-0.01 mg/h
228	2.055 V	2.060 V	0.0 °C	0000 0000
229	41.2 °C	0.0 °C	0.0 °C	0.0 °C
230	0.0 kg	0.0 kg	12460 km	
231				
232	41.2 °C	0000 0100	-1.6 %	2.8 %
233	-0.1 %	3.9 %	-0.1 %	3.9 %
234	1.1 %	3.1 %	-0.2 %	0.7 %
235	52.5 °C	51.7 °C	8.2 °C	7.5 °C
236	51.7 °C	51.7 °C	0.0 s	0
237				
238	0.860 V	4.199 V		
239	1.308 V	4.116 V	1.416 V	4.107 V
240	0 km/h	1111 0111	0000 0011	0000 0000
241	no_error			
242	no_error			
243	no_error			
244	no_error			

245	no_error				
246	no_error				
247	no_error				
248	no_error				
249	no_error				
250	0 %			0.053 V	
251	1.02 bar	2.70 bar	0.34 s	51.7 °C	
252	173.89 bar	173.89 bar	655.35 s	51.7 °C	
253	S62R7010 CB1A S0				
254	No AS active				

Datum: 13.10.2010 19:34:23

Steuergerät

01 7E0 7E8 Motorelektronik

Diagnosedatensatz: VAG\SG\EV_ECM30TFS021XS85_001

Steuergeräteidentifikation

Teilenummer: 8E1910559F
Konfiguration: 0060 programmierbar
Systembezeichnung: 3.2l V6 FSI
Gerätenummer: 64638
Importeursnummer: 444
Betriebsnummer: 02136
Lange Codierung: 0104010902070120
Hardwareteilenummer: 8E0907559J
Seriennummer: XXXXXXXXXXXXXXX
Herstellerwerk: SME-RBG
Fertigungsdatum: 25.06.07
Änderungsstand: --H21--
Prüfstandnummer: 0394
Herstellernummer: 0442
Status des Flash: 0000 0000 1 1 0000 0000
Motor/Systemnummer: AUK
Fahrgestellnummer: Ex. 6

Fehlerspeicher

2 Fehler gespeichert

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0110 1000 unplausibles Signal
Bedingungen erfüllt
statisch
Warnlampe aus

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz
0110 0110 Kurzschluss nach Plus
Bedingungen erfüllt
statisch
Warnlampe aus

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0000 1000 Fehlerstatus
5 dez Priorität
1 dez Häufigkeitszähler
40 dez Verlernzähler
12708 km Kilometerstand
00.00.00 Datum
00:00:00 Uhrzeit
704 U/min Drehzahl
109 mg/H Luftmasse pro Hub
73.5 °C Temperatur

Leerlauf	Text aus Tabelle
15.7 %	Last
0 km/h	Geschwindigkeit

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz

0000 0001	Fehlerstatus
5 dez	Priorität
1 dez	Häufigkeitszähler
40 dez	Verlernzähler
12708 km	Kilometerstand
00.00.00	Datum
00:00:00	Uhrzeit
704 U/min	Drehzahl
109 mg/H	Luftmasse pro Hub
90.0 °C	Temperatur
Leerlauf	Text aus Tabelle
4.2 bar	Druck
0 km/h	Geschwindigkeit

Messwerte

1	0 U/min	32.2 °C	0.0 %	0.0 %
2	0 U/min	0 %	7.25 ms	985.6 mbar
3	0 U/min	982.8 mbar	5.1 %	-0.0 °v.OT
4	0 U/min	11.934 V	32.2 °C	25.5 °C
5	0 U/min	0 %	0 km/h	
6	0 U/min	0 %	25.5 °C	-3.0 %
7				
8				
9	63.2 mm	48.0 mm	0	0
10	0 U/min	0 %	5.1 %	-0.0 °v.OT
11	0 U/min	32.2 °C	25.5 °C	-0.0 °v.OT
12				
13				
14	0 U/min	0 %	0	gesperrt
15	0	0	0	gesperrt
16	0	0	0	gesperrt
17				
18	0 U/min	0 U/min	0 %	0 %
19				
20	0.00 KW	0.00 KW	0.00 KW	0.00 KW
21	0.00 KW	0.00 KW		
22	0 U/min	0 %	0.00 KW	0.00 KW
23	0 U/min	0 %	0.00 KW	0.00 KW
24	0 U/min	0 %	0.00 KW	0.00 KW
25				
26	4.004 V	4.004 V	4.004 V	4.004 V
27	4.004 V	4.004 V		
28	242 U/min	100 %	32.2 °C	Test AUS
29				
30	___0 0100	___0100	___0 0100	___0100
31	1.02840	0.98348	1.02840	0.98348
32	2.1 %	2.9 %	-1.1 %	0.6 %
33	0.0 %	2.032 V	0.0 %	2.032 V

34	1772 U/min	-33.0 °C	0.00977	Test AUS
35	1826 U/min	-33.0 °C	0.03516	Test AUS
36	0.429 V	Test AUS	0.424 V	Test AUS
37	20 %	0.434 V	0.0 %	Test AUS
38	19 %	0.424 V	0.0 %	Test AUS
39	10.1 g/s	0.429 V	0.424 V	Test AUS
40				
41	16.38 kOhm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
42	16.38 kOhm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
43	1823 U/min	73.0 °C	0.429 V	aus
44	1776 U/min	73.0 °C	0.429 V	aus
45				
46	1660 U/min	73.0 °C	0.03907	Test AUS
47	1624 U/min	73.0 °C	0.02344	Test AUS
48				
49				
50	1572 U/min	866 U/min	aus	Kompr. AUS
51	1557 U/min	866 U/min	0	11.730 V
52				
53	1505 U/min	866 U/min	11.730 V	0.0 Nm
54	1477 U/min	Leerlauf	0 %	4.3 %
55	1422 U/min	-0.2 Nm	13.5 Nm	__00 0000
56	1371 U/min	866 U/min	-0.3 Nm	__00 0000
57	1332 U/min	866 U/min	Kompr. AUS	0.7 Nm
58	1304 U/min	16 %	aus	
59				
60	13.7 %	87.1 %	0	ADP. i.O.
61	1232 U/min	12.342 V	-12.0 %	__00 0000
62	13.7 %	87.1 %	14.9 %	7.5 %
63	14.9 %	89.4 %		gelernt
64	0.527 V	4.510 V	0.781 V	4.251 V
65				
66	0 km/h	0000 1011	0 km/h	1000 0001
67		0000 1011		
68	1081 U/min	25 %	0	WK auf
69				
70	0 %	0.0 %	1.2 %	Test AUS
71	Reed zu			Test AUS
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85	12700 km	54	298	1408
86	0000 0000	1111 1111	0001 1110	0001 1110
87	0000 0000	0000 1000	0000 0000	0000 0000
88	1100 1111	0010 1101	1100 1000	
89	0 km	zu klein		

90	951 U/min	0 %	0.00 KW	0.00 KW
91	944 U/min	0 %	0.00 KW	0.00 KW
92	941 U/min	0 %	0.00 KW	0.00 KW
93	-0.37 KW	4.12 KW	-0.37 KW	1.87 KW
94	0.00 KW	0.00 KW	Test EIN	Test EIN
95	100.0 %	100.0 %	3.276 V	ADP. i.O.
96	0.00 KW	0.00 KW	Test EIN	Test EIN
97	928 U/min	24 %	408.5 mbar	aus
98	921 U/min	0 %	0.00 KW	0.00 KW
99	915 U/min	32.2 °C	0.0 %	aus
100	0000 0000	32.2 °C	4.2 s	0101 0001
101	911 U/min	25 %	1.78 ms	414.4 mbar
102	904 U/min	32.2 °C	25.5 °C	1.78 ms
103	6.93 bar	-2.5 %	25.0 %	aus
104	32.2 °C	0.0 %	3.1 %	0.0 %
105	879 U/min	26 %	32.2 °C	aus
106	6.92 bar	71 %		2.00 s
107	892 U/min	0.0 %	0.0 %	aus
108				
109				
110				
111				
112				
113	893 U/min	25 %	13.7 %	982.8 mbar
114				
115				
116				
117				
118				
119				
120	867 U/min	496.0 Nm	49.4 Nm	ASR n.aktiv
121				
122	899 U/min	496.0 Nm	48.0 Nm	kein Eingr.
123				
124				
125	Getriebe 1	ABS 1	Kombi 1	Klima 1
126		Lenkwink. 1	Airbag 1	
127			Lenkrad 1	
128				
129				
130				
131				
132				
133				
134	31 °C	11.2 °C	25.5 °C	32.2 °C
135		10 %		
136			aus	
137	aus	Kompr. AUS	6.60 bar	0 %
138	32.2 °C	0.0 g/s	0 km/h	Test AUS
139	75.6 °C	0.0 kg	0.0 kg	Test AUS
140	57 %	35.21 bar	35.34 bar	inaktiv
141	0.00 bar	5	-7 2	
142	100 %	100.0 %	0.009 V	ADP. i.O.
143				
144	100 %	100.0 %	0.000 V	ADP. i.O.
145				

146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				
161				
162				
163				
164				
165				
166				
167				
168				
169				
170	aus	aus	aus	aus
171				
172				
173				
174				
175				
176				
177				
178				
179				
180				
181				
182				
183				
184				
185				
186				
187				
188				
189				
190	32.2 °C	0 %	0 U/min	5 °DK
191				
192				
193				
194				
195				
196				
197				
198				
199				
200				
201	71 %	8	6.99 bar	2.662 V

202	2.9 %	0.6 %	0.0 %	0.0 %
203	0 U/min	0 %	7.25 ms	7.25 ms
204	65.53 kOhm	65.53 kOhm	-33.0 °C	Test AUS
205	-2.2 %	0.0 %	100.0 %	
206	0 %	0.0 %	0 %	0.0 %
207	0000 0001	12460 km	12460 km	0000 0000
208	0	0	0	0
209	0	0	804	gesperrt
210	0 U/min	0 %	0.0 mbar	0.00 KW
211	0.0 g/s	0.0 g/s		985.8 mbar
212	0 %	0.0 %	0 %	0.0 %
213	0 %	200 %	0.0 mbar	
214	0.3 %	-0.1 %	0.0 %	
215	0.26293	0.26217		
216	0.00000	0.00000	0	NA
217	0.00000	0.00000	0	NA
218	0.00	-0.59	-0.13	-0.82
219	-0.26	0.06	298	
220	-5.2 °C	-5.2 °C	9.7 °C	9.7 °C
221	27.0 °C	27.6 °C	35.2 °C	35.2 °C
222	42.0 °C	42.0 °C		
223				
224	0.4 %	0.5 %	-0.9 %	0.7 %
225	-1.0 %	0.3 %	0.0 °	0.0 °
226	12460 km	12460 km	-0.14 mg/h	0.08 mg/h
227	0.05 mg/h	0.01 mg/h	0.02 mg/h	-0.03 mg/h
228	2.055 V	2.055 V	0.0 °C	0000 0000
229	25.5 °C	0.0 °C	0.0 °C	0.0 °C
230	0.0 kg	0.0 kg	12460 km	
231				
232	25.5 °C	0000 0100	-1.6 %	2.8 %
233	-1.1 %	3.9 %	-1.1 %	3.9 %
234	-0.8 %	0.6 %	-0.8 %	0.6 %
235	31.5 °C	32.2 °C	8.2 °C	7.5 °C
236	32.2 °C	32.2 °C	0.0 s	0
237				
238	0.860 V	4.199 V		
239	1.308 V	4.116 V	1.416 V	4.107 V
240	0 km/h	1111 0111	0000 0011	0000 0000
241	mec_open_cps			
242	efppwm_plaus			
243	no_error			
244	no_error			
245	no_error			
246	no_error			
247	no_error			
248	no_error			
249	no_error			
250	0 %		0.053 V	
251	1.07 bar	1.03 bar	2.01 s	32.2 °C
252	173.89 bar	173.89 bar	655.35 s	32.2 °C
253	S62R7010 CB1A S0			
254	No AS active			

Datum: 07.10.2010 20:29:00

Steuergerät

01 7E0 7E8 Motorelektronik

Diagnosedatensatz: VAG\SG\EV_ECM30TFS021XS85_001

Steuergeräteidentifikation

Teilenummer: 8E1910559F
Konfiguration: 0060 programmierbar
Systembezeichnung: 3.2l V6 FSI
Gerätenummer: 64638
Importeursnummer: 444
Betriebsnummer: 02136
Lange Codierung: 0104010902070120
Hardwareteilenummer: 8E0907559J
Seriennummer: XXXXXXXXXXXXXXXX
Herstellerwerk: SME-RBG
Fertigungsdatum: 25.06.07
Änderungsstand: --H21--
Prüfstandnummer: 0394
Herstellernummer: 0442
Status des Flash: 0000 0000 1 1 0000 0000
Motor/Systemnummer: AUK
Fahrgestellnummer: **Ex. 6**

Fehlerspeicher

2 Fehler gespeichert

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0110 1000 unplausibles Signal
Bedingungen erfüllt
statisch
Warnlampe aus

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz
0110 0110 Kurzschluss nach Plus
Bedingungen erfüllt
statisch
Warnlampe aus

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0000 1000 Fehlerstatus
5 dez Priorität
1 dez Häufigkeitszähler
40 dez Verlernzähler
12708 km Kilometerstand
00.00.00 Datum
00:00:00 Uhrzeit
704 U/min Drehzahl
109 mg/H Luftmasse pro Hub
73.5 °C Temperatur

Leerlauf	Text aus Tabelle
15.7 %	Last
0 km/h	Geschwindigkeit

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz

0000 0001	Fehlerstatus
5 dez	Priorität
1 dez	Häufigkeitszähler
40 dez	Verlernzähler
12708 km	Kilometerstand
00.00.00	Datum
00:00:00	Uhrzeit
704 U/min	Drehzahl
109 mg/H	Luftmasse pro Hub
90.0 °C	Temperatur
Leerlauf	Text aus Tabelle
4.2 bar	Druck
0 km/h	Geschwindigkeit

Messwerte

1	0 U/min	92.3 °C	0.0 %	0.0 %
2	0 U/min	0 %	5.85 ms	986.7 mbar
3	0 U/min	982.8 mbar	5.5 %	-0.0 °v.OT
4	0 U/min	12.342 V	92.3 °C	38.2 °C
5	0 U/min	0 %	0 km/h	
6	0 U/min	0 %	38.2 °C	-3.0 %
7				
8				
9	64.2 mm	46.0 mm	0	0
10	0 U/min	0 %	5.5 %	-0.0 °v.OT
11	0 U/min	92.3 °C	38.2 °C	-0.0 °v.OT
12				
13				
14	0 U/min	0 %	0	gesperrt
15	0	0	0	gesperrt
16	0	0	0	gesperrt
17				
18	0 U/min	0 U/min	0 %	0 %
19				
20	0.00 KW	0.00 KW	0.00 KW	0.00 KW
21	0.00 KW	0.00 KW		
22	0 U/min	0 %	0.00 KW	0.00 KW
23	0 U/min	0 %	0.00 KW	0.00 KW
24	0 U/min	0 %	0.00 KW	0.00 KW
25				
26	4.004 V	4.004 V	4.004 V	4.004 V
27	4.004 V	4.004 V		
28	0 U/min	0 %	92.3 °C	Test AUS
29				
30	___0 0100	___0100	___0 0100	___0100
31	1.00008	1.00008	1.00008	1.00008
32	2.1 %	2.9 %	-1.1 %	0.6 %
33	0.0 %	2.055 V	0.0 %	2.055 V

34	0 U/min	-33.0 °C	0.00977	Test AUS
35	0 U/min	-33.0 °C	0.03516	Test AUS
36	0.444 V	Test AUS	0.444 V	Test AUS
37	0 %	0.444 V	0.0 %	Test AUS
38	0 %	0.444 V	0.0 %	Test AUS
39	0.0 g/s	0.444 V	0.444 V	Test AUS
40				
41	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
42	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
43	0 U/min	-33.0 °C	0.444 V	aus
44	0 U/min	-33.0 °C	0.444 V	aus
45				
46	0 U/min	-33.0 °C	0.03907	Test AUS
47	0 U/min	-33.0 °C	0.02344	Test AUS
48				
49				
50	0 U/min	730 U/min	aus	Kompr. AUS
51	0 U/min	730 U/min	0	12.342 V
52				
53	0 U/min	730 U/min	12.342 V	0.0 Nm
54	0 U/min	0 %	5.1 %	
55	0 U/min	0.0 Nm	29.9 Nm	___00 0000
56	0 U/min	730 U/min	0.0 Nm	___00 0000
57	0 U/min	730 U/min	Kompr. AUS	0.7 Nm
58	0 U/min	0 %	aus	
59				
60	15.3 %	85.9 %	0	ADP. i.O.
61	0 U/min	12.444 V	0.0 %	___00 0000
62	15.3 %	85.9 %	14.9 %	7.5 %
63	14.9 %	89.4 %		gelernt
64	0.527 V	4.510 V	0.781 V	4.251 V
65				
66	0 km/h	0000 1000	0 km/h	1000 0001
67		0000 1000		
68	0 U/min	0 %	0	WK auf
69				
70	0 %	0.0 %	0.0 %	Test AUS
71	Reed auf			Test AUS
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85	12700 km	54	298	1399
86	0000 0000	1111 1111	0001 1111	0001 1111
87	0000 0000	0000 1000	0000 0000	0000 0000
88	1100 1111	0010 1101	1100 1000	
89	0 km	zu klein		

90	0 U/min	0 %	0.00 KW	0.00 KW
91	0 U/min	0 %	0.00 KW	0.00 KW
92	0 U/min	0 %	0.00 KW	0.00 KW
93				
94	0.00 KW	0.00 KW	Test AUS	Test AUS
95	0.0 %	0.0 %	0.000 V	ADP. i.O.
96	0.00 KW	0.00 KW	Test AUS	Test AUS
97	0 U/min	0 %	982.8 mbar	aus
98	0 U/min	0 %	0.00 KW	0.00 KW
99	0 U/min	92.3 °C	0.0 %	aus
100	0000 0000	92.3 °C	0.0 s	1001 0001
101	0 U/min	0 %	6.00 ms	982.8 mbar
102	0 U/min	92.3 °C	38.2 °C	6.00 ms
103	0.96 bar	0.0 %	25.0 %	aus
104	91.5 °C	10.9 %	11.7 %	5.5 %
105	0 U/min	0 %	92.3 °C	ein
106	0.96 bar	10 %		0.00 s
107	0 U/min	0.0 %	0.0 %	aus
108				
109				
110				
111				
112				
113	0 U/min	0 %	15.3 %	982.8 mbar
114				
115				
116				
117				
118				
119				
120	0 U/min	496.0 Nm	19.3 Nm	ASR n.aktiv
121				
122	0 U/min	496.0 Nm	19.3 Nm	kein Eingr.
123				
124				
125	Getriebe 1	ABS 1	Kombi 1	Klima 1
126		Lenkwink. 1	Airbag 1	
127			Lenkrad 1	
128				
129				
130				
131				
132				
133				
134	91 °C	11.2 °C	38.2 °C	92.3 °C
135		10 %		
136			aus	
137	aus	Kompr. AUS	7.60 bar	0 %
138	91.5 °C	0.0 g/s	0 km/h	Test AUS
139	75.6 °C	0.0 kg	0.0 kg	Test AUS
140	0 %	49.50 bar	20.31 bar	inaktiv
141	0.00 bar	0	0	3
142	100 %	100.0 %	0.004 V	ADP. i.O.
143				
144	100 %	100.0 %	0.000 V	ADP. i.O.
145				

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201

aus	aus	aus	aus
92.3 °C	0 %	0 U/min	5 °DK
71 %	9	6.99 bar	0.493 V

202	2.9 %	0.6 %	0.0 %	0.0 %
203	0 U/min	0 %	5.90 ms	5.90 ms
204	65.53 kOhm	65.53 kOhm	-33.0 °C	Test AUS
205	56.6 %	0.0 %	100.0 %	
206	0 %	0.0 %	0 %	0.0 %
207	0000 0001	12460 km	12460 km	0000 0000
208	0	0	0	0
209	0	0	804	gesperrt
210	0 U/min	0 %	0.0 mbar	0.00 KW
211	0.0 g/s	0.0 g/s		986.7 mbar
212	0 %	0.0 %	0 %	0.0 %
213	0 %	200 %	0.0 mbar	
214	0.6 %	-0.2 %	0.0 %	
215	0.26293	0.26217		
216	0.00000	0.00000	0	NA
217	0.00000	0.00000	0	NA
218	0.00	-0.59	-0.13	-0.82
219	-0.26	0.06	298	
220	-5.2 °C	-5.2 °C	9.7 °C	9.7 °C
221	27.0 °C	27.6 °C	35.2 °C	35.2 °C
222	42.0 °C	42.0 °C		
223				
224	0.4 %	0.5 %	-0.9 %	0.7 %
225	-1.0 %	0.3 %	0.0 °	0.0 °
226	12460 km	12460 km	-0.14 mg/h	0.08 mg/h
227	0.05 mg/h	0.01 mg/h	0.02 mg/h	-0.03 mg/h
228	2.055 V	2.060 V	0.0 °C	0000 0000
229	38.2 °C	0.0 °C	0.0 °C	0.0 °C
230	0.0 kg	0.0 kg	12460 km	
231				
232	38.2 °C	0000 0100	-1.6 %	2.8 %
233	-1.1 %	3.9 %	-1.1 %	3.9 %
234	-0.8 %	0.6 %	-0.8 %	0.6 %
235	91.5 °C	92.3 °C	8.2 °C	7.5 °C
236	92.3 °C	92.3 °C	0.0 s	0
237				
238	0.860 V	4.199 V		
239	1.308 V	4.116 V	1.416 V	4.107 V
240	0 km/h	1111 0111	0000 0011	0000 0000
241	mec_open_cps			
242	efppwm_plaus			
243	no_error			
244	no_error			
245	no_error			
246	no_error			
247	no_error			
248	no_error			
249	no_error			
250	0 %		0.053 V	
251	1.07 bar	5.15 bar	1.91 s	92.3 °C
252	173.89 bar	173.89 bar	655.35 s	92.3 °C
253	S62R7010 CB1A S0			
254	No AS active			

Datum: 07.10.2010 21:08:39

Steuergerät

01 7E0 7E8 Motorelektronik

Diagnosedatensatz: VAG\SG\EV_ECM30TFS021XS85_001

Steuergeräteidentifikation

Teilenummer: 8E1910559F
Konfiguration: 0060 programmierbar
Systembezeichnung: 3.2l V6 FSI
Gerätenummer: 64638
Importeursnummer: 444
Betriebsnummer: 02136
Lange Codierung: 0104010902070120
Hardwareteilenummer: 8E0907559J
Seriennummer: XXXXXXXXXXXXXXX
Herstellerwerk: SME-RBG
Fertigungsdatum: 25.06.07
Änderungsstand: --H21--
Prüfstandnummer: 0394
Herstellernummer: 0442
Status des Flash: 0000 0000 1 1 0000 0000
Motor/Systemnummer: AUK
Fahrgestellnummer: Ex. 6

Fehlerspeicher

2 Fehler gespeichert

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0110 1000 unplausibles Signal
Bedingungen erfüllt
statisch
Warnlampe aus

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz
0110 0110 Kurzschluss nach Plus
Bedingungen erfüllt
statisch
Warnlampe aus

P0441 Tankentlüftungssystem Durchsatz fehlerhaft
0000 1000 Fehlerstatus
5 dez Priorität
1 dez Häufigkeitszähler
40 dez Verlernzähler
12708 km Kilometerstand
00.00.00 Datum
00:00:00 Uhrzeit
704 U/min Drehzahl
109 mg/H Luftmasse pro Hub
73.5 °C Temperatur

Leerlauf	Text aus Tabelle
15.7 %	Last
0 km/h	Geschwindigkeit

P310B Kraftstoffniederdruckregelung Kraftstoffdruck außerhalb der Toleranz

0000 0001	Fehlerstatus
5 dez	Priorität
1 dez	Häufigkeitszähler
40 dez	Verlernzähler
12708 km	Kilometerstand
00.00.00	Datum
00:00:00	Uhrzeit
704 U/min	Drehzahl
109 mg/H	Luftmasse pro Hub
90.0 °C	Temperatur
Leerlauf	Text aus Tabelle
4.2 bar	Druck
0 km/h	Geschwindigkeit

Messwerte

1	0 U/min	75.0 °C	0.0 %	0.0 %
2	0 U/min	0 %	5.54 ms	985.6 mbar
3	0 U/min	982.8 mbar	5.1 %	-0.0 °v.OT
4	0 U/min	12.036 V	75.0 °C	42.7 °C
5	0 U/min	0 %	0 km/h	
6	0 U/min	0 %	42.7 °C	-3.0 %
7				
8				
9	63.0 mm	46.0 mm	0	0
10	0 U/min	0 %	5.1 %	-0.0 °v.OT
11	0 U/min	75.0 °C	42.7 °C	-0.0 °v.OT
12				
13				
14	0 U/min	0 %	0	gesperrt
15	0	0	0	gesperrt
16	0	0	0	gesperrt
17				
18	0 U/min	0 U/min	0 %	0 %
19				
20	0.00 KW	0.00 KW	0.00 KW	0.00 KW
21	0.00 KW	0.00 KW		
22	0 U/min	0 %	0.00 KW	0.00 KW
23	0 U/min	0 %	0.00 KW	0.00 KW
24	0 U/min	0 %	0.00 KW	0.00 KW
25				
26	4.004 V	4.004 V	4.004 V	4.004 V
27	4.004 V	4.004 V		
28	0 U/min	0 %	75.0 °C	Test AUS
29				
30	___0 0100	___0100	___0 0100	___0100
31	1.00008	1.00008	1.00008	1.00008
32	2.1 %	2.9 %	-1.1 %	0.6 %
33	0.0 %	2.060 V	0.0 %	2.060 V

34	0 U/min	-33.0 °C	0.00977	Test AUS
35	0 U/min	-33.0 °C	0.03516	Test AUS
36	0.429 V	Test AUS	0.424 V	Test AUS
37	0 %	0.429 V	0.0 %	Test AUS
38	0 %	0.424 V	0.0 %	Test AUS
39	0.0 g/s	0.429 V	0.429 V	Test AUS
40				
41	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
42	0 Ohm	Hzg. vK. EIN	65.53 kOhm	Hzg. nK. EIN
43	0 U/min	-33.0 °C	0.429 V	aus
44	0 U/min	-33.0 °C	0.424 V	aus
45				
46	0 U/min	-33.0 °C	0.03907	Test AUS
47	0 U/min	-33.0 °C	0.02344	Test AUS
48				
49				
50	0 U/min	730 U/min	aus	Kompr. AUS
51	0 U/min	730 U/min	0	12.036 V
52				
53	0 U/min	730 U/min	12.036 V	0.0 Nm
54	0 U/min	0 %	5.5 %	
55	0 U/min	0.0 Nm	29.8 Nm	—00 0000
56	0 U/min	730 U/min	0.0 Nm	—00 0000
57	0 U/min	730 U/min	Kompr. AUS	0.7 Nm
58	0 U/min	0 %	aus	
59				
60	15.3 %	85.9 %	0	ADP. i.O.
61	0 U/min	12.036 V	0.0 %	—00 0000
62	15.3 %	85.9 %	14.9 %	7.5 %
63	14.9 %	89.4 %		gelernt
64	0.527 V	4.510 V	0.781 V	4.251 V
65				
66	0 km/h	0000 1000	0 km/h	1000 0001
67		0000 1000		
68	0 U/min	0 %	0	WK auf
69				
70	0 %	0.0 %	0.0 %	Test AUS
71	Reed auf			Test AUS
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85	12700 km	54	298	1400
86	0000 0000	1111 1111	0001 1111	0001 1111
87	0000 0000	0000 1000	0000 0000	0000 0000
88	1100 1111	0010 1101	1100 1000	
89	0 km	zu klein		

90	0 U/min	0 %	0.00 KW	0.00 KW
91	0 U/min	0 %	0.00 KW	0.00 KW
92	0 U/min	0 %	0.00 KW	0.00 KW
93				
94	0.00 KW	0.00 KW	Test AUS	Test AUS
95	0.0 %	0.0 %	0.000 V	ADP. i.O.
96	0.00 KW	0.00 KW	Test AUS	Test AUS
97	0 U/min	0 %	982.8 mbar	aus
98	0 U/min	0 %	0.00 KW	0.00 KW
99	0 U/min	75.0 °C	0.0 %	aus
100	0000 0000	75.0 °C	0.0 s	1001 0001
101	0 U/min	0 %	5.56 ms	982.8 mbar
102	0 U/min	75.0 °C	42.7 °C	5.56 ms
103	6.08 bar	0.0 %	25.0 %	ADP. läuft
104	75.0 °C	10.9 %	11.7 %	5.5 %
105	0 U/min	0 %	75.0 °C	ein
106	6.08 bar	10 %		1.99 s
107	0 U/min	0.0 %	0.0 %	aus
108				
109				
110				
111				
112				
113	0 U/min	0 %	15.3 %	982.8 mbar
114				
115				
116				
117				
118				
119				
120	0 U/min	496.0 Nm	19.3 Nm	ASR n.aktiv
121				
122	0 U/min	496.0 Nm	19.3 Nm	kein Eingr.
123				
124				
125	Getriebe 1	ABS 1	Kombi 1	Klima 1
126		Lenkwink. 1	Airbag 1	
127			Lenkrad 1	
128				
129				
130				
131				
132				
133				
134	75 °C	11.2 °C	42.7 °C	75.0 °C
135		10 %		
136			aus	
137	aus	Kompr. AUS	7.40 bar	0 %
138	75.0 °C	0.0 g/s	0 km/h	Test AUS
139	75.6 °C	0.0 kg	0.0 kg	Test AUS
140	0 %	55.00 bar	27.48 bar	inaktiv
141	0.00 bar	0	0	3
142	100 %	100.0 %	0.009 V	ADP. i.O.
143				
144	100 %	100.0 %	0.000 V	ADP. i.O.
145				

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197
198
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201

aus	aus	aus	aus
75.0 °C	0 %	0 U/min	5 °DK
71 %	9	6.99 bar	2.534 V

202	2.9 %	0.6 %	0.0 %	0.0 %
203	0 U/min	0 %	5.58 ms	5.58 ms
204	65.53 kOhm	65.53 kOhm	-33.0 °C	Test AUS
205	34.3 %	0.0 %	100.0 %	
206	0 %	0.0 %	0 %	0.0 %
207	0000 0001	12460 km	12460 km	0000 0000
208	0	0	0	0
209	0	0	804	gesperrt
210	0 U/min	0 %	0.0 mbar	0.00 KW
211	0.0 g/s	0.0 g/s		985.6 mbar
212	0 %	0.0 %	0 %	0.0 %
213	0 %	200 %	0.0 mbar	
214	0.5 %	-0.2 %	0.0 %	
215	0.26293	0.26217		
216	0.00000	0.00000	0	NA
217	0.00000	0.00000	0	NA
218	0.00	-0.59	-0.13	-0.82
219	-0.26	0.06	298	
220	-5.2 °C	-5.2 °C	9.7 °C	9.7 °C
221	27.0 °C	27.6 °C	35.2 °C	35.2 °C
222	42.0 °C	42.0 °C		
223				
224	0.4 %	0.5 %	-0.9 %	0.7 %
225	-1.0 %	0.3 %	0.0 °	0.0 °
226	12460 km	12460 km	-0.14 mg/h	0.08 mg/h
227	0.05 mg/h	0.01 mg/h	0.02 mg/h	-0.03 mg/h
228	2.060 V	2.060 V	0.0 °C	0000 0000
229	42.7 °C	0.0 °C	0.0 °C	0.0 °C
230	0.0 kg	0.0 kg	12460 km	
231				
232	42.7 °C	0000 0100	-1.6 %	2.8 %
233	-1.1 %	3.9 %	-1.1 %	3.9 %
234	-0.8 %	0.6 %	-0.8 %	0.6 %
235	75.0 °C	75.0 °C	8.2 °C	7.5 °C
236	75.0 °C	75.0 °C	0.0 s	0
237				
238	0.860 V	4.199 V		
239	1.308 V	4.116 V	1.416 V	4.107 V
240	0 km/h	1111 0111	0000 0011	0000 0000
241	mec_open_cps			
242	efppwm_plaus			
243	no_error			
244	no_error			
245	no_error			
246	no_error			
247	no_error			
248	no_error			
249	no_error			
250	0 %		0.053 V	
251	1.07 bar	1.03 bar	2.01 s	75.0 °C
252	173.89 bar	173.89 bar	655.35 s	75.0 °C
253	S62R7010 CB1A S0			
254	No AS active			

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US
Sent: Thur 10/14/2010 10:48:25 AM
Subject: Bentley 15113
[15113_10-13-10.pdf](#)


Good morning Bob,

Please find enclosed the Laboratory Test Data for the Subject vehicle. If you have any questions or concerns, please contact me.

Thanks,

Vince Mazaitis

C150

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data							
Test Number: 2010-0276-005				Vehicle ID: 15113			
		Test Date: 10/13/2010		MFR Name: BENTLEY MOTORS LTD.			
		Key Start / Hot Soak: 10:57:27 / 09:37		MFR Codes: 165		BEX	
		Fuel Container ID: F00023		Config #: 00			
		Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: AUTO			
		Test Procedure: 21 Federal fuel 2-day exhaust (w/can loa)		Shift Schedule: A09980005			
		Calculation Method: Gasoline		Beginning Odometer: 005298.0 MI			
Pretest Remarks:		Drive Schedule: ftp3bag		Soak Period: 20.6 hours			
Bag Data							
Phase 1		HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample		13.448	81.656	1.107	1.314	3.708	
Ambient		3.591	0.000	0.033	0.046	1.966	
Net Concentration		10.211	81.656	1.077	1.273	1.935	7.865
Remarks:							
Phase 2		HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample		3.575	1.402	0.043	0.942	1.838	
Ambient		3.634	0.000	0.025	0.046	1.940	
Net Concentration		0.197	1.402	0.020	0.899	0.034	0.155
Remarks:							
Phase 3		HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample		4.573	4.199	0.179	1.133	1.956	
Ambient		4.628	0.000	0.027	0.046	2.011	
Net Concentration		0.337	4.199	0.154	1.091	0.115	0.197
Remarks:							
Phase 4		HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample							
Ambient							
Net Concentration							
Remarks:							
Results							
	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.185	2.989	0.058	732.1	0.041	0.143 / 0.148	12.057
Phase 2	0.006	0.081	0.002	821.1	0.001	0.004 / 0.005	10.826
Phase 3	0.006	0.152	0.008	619.7	0.002	0.004 / 0.004	14.341
Weighted	0.04301	0.70427	0.01516	747.222	0.00967	(NMOG=1.04xNMHC) 0.0329 / 0.0342	
Fuel Economy		Gasoline MPG		Dyno Settings		Dyno #: D005	
Phase 1	12.05					Inertia: 6000	
Phase 2	10.82					EPA Set Co A: 10.32	
Phase 3	14.33					EPA Set Co B: 0.2173	
						EPA Set Co C: 0.02181	
Weighted	11.87					Emiss-Bench: D005	
v101007 - d005 EPAVDAEm101013103401 Page 1 of 2 Print Time 13-Oct-2010 11:51							

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0276-005

Vehicle ID: 15113

Results	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.662	10.686	0.207	2617.2	0.145	0.510	1.212
Phase 2	0.022	0.312	0.007	3147.3	0.004	0.017	
Phase 3	0.022	0.543	0.029	2217.8	0.009	0.013	



Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.06	29.06	29.06	
Avg Cell Temp (degF)	75.23	75.29	75.38	
Dew Point (degF)	47.28	47.19	47.64	
Specific Humidity (grains/lbm)	49.73	49.59	50.44	
NOx Corr Factor	0.8939	0.8933	0.8965	
CO2 Dilution Factor	10.127	14.224	11.820	
CFV Vmix (scf @68F)	3969.34	6755.66	3925.20	
CVS Flow Rate Avg (scfm)	469.56	466.12	465.44	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.20	869.59	506.00	
Distance (miles)	3.575	3.833	3.579	
Bag Analysis Time (secs)	76.4	73.6	74.0	

MFR Test Results

for Procedure 21 Federal fuel 2-day exhaust (w/can load)

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0345	0.5654	0.0142	695	0	0.0247

Odometer
4951 M

MPG
12.8

MPG is 7.83 % higher than EPA MPG

MFR Lab: Bentley Motors Limited

Dyno: 1

Fuel: 61 Tier 2 Cert Gasoline

I have validated the data in accordance with the requirements of TP 730

Validated By:

OB

Date:

10/13/10

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: CN=Tom Ball/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA[]; N=Mark Maury/OU=AA/O=USEPA/C=US@EPA;CN=JohnH

White/OU=AA/O=USEPA/C=US@EPA[]; N=JohnH White/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 10/14/2010 4:58:12 PM
Subject: Preliminary reply

Hi, Sebastian.

Thank you for your two letters, one asking for additional preconditioning and the other requesting approval for a revised vehicle preparation and preconditioning procedure. I am currently preparing letters replying to your questions. However, because the timing on these subjects is somewhat urgent, I am responding informally via e-mail and will respond with letters shortly.

In response to the request for preconditioning, we will not allow the additional preconditioning. Among other reasons, the request for preconditioning was limited to vehicles from model year 2007 and earlier. The current class is a 2008 model year test group.

Regarding the revised vehicle preparation and preconditioning procedure, we suggest a slightly different procedure than the one that you proposed: The vehicle will be run until the engine stalls. The vehicle will immediately be refilled with a gallon of indolene and the engine will be started and idled for five minutes to minimize the effect of the air trapped in the fuel system.

A second drain and fill will be conducted in the same way, however, the order of the second drain and fill in the FTP will change. The second drain and fill will come after the vehicle soak and before the preconditioning drive. This will give time for any air that may have been introduced into the fuel lines to be purged during the preconditioning drive. Because this preconditioning will occur after the drain and fill, EPA will not run an additional cold start FTP-72 as requested in your letter.

I apologize for this informal response to your letters and will follow up with a more formal response soon.

Please call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Bruce Garrison/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=JohnH White/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=JohnH White/OU=AA/O=USEPA/C=US@EPA;CN=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Kim Cieslak/OU=AA/O=USEPA/C=US@EPA;CN=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Mark Maury/OU=AA/O=USEPA/C=US@EPA;"Berenz, Sebastian" [Sebastian.Berenz@vw.com]; Berenz, Sebastian" [Sebastian.Berenz@vw.com]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]; N=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Tom Ball/OU=AA/O=USEPA/C=US
Sent: Thur 10/14/2010 5:15:10 PM
Subject: Re: Preliminary reply

Lynn,

Make sure we get agreement with them on the drain & fill procedures.

Tom

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
Cc: Tom Ball/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Arvon Mitcham/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Jim Snyder/AA/USEPA/US@EPA, Vincent Mazaitis/AA/USEPA/US@EPA, Kim Cieslak/AA/USEPA/US@EPA, Bruce Garrison/AA/USEPA/US@EPA, Mark Maury/AA/USEPA/US@EPA, JohnH White/AA/USEPA/US@EPA
Date: 10/14/2010 12:58 PM
Subject: Preliminary reply

Hi, Sebastian.

Thank you for your two letters, one asking for additional preconditioning and the other requesting approval for a revised vehicle preparation and preconditioning procedure. I am currently preparing letters replying to your questions. However, because the timing on these subjects is somewhat urgent, I am responding informally via e-mail and will respond with letters shortly.

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I apologize for this informal response to your letters and will follow up with a more formal response soon.

Please call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 10/14/2010 10:32:28 PM
Subject: 8AD XV03.1374 Confirmatory Testings EPA
[requested test procedure confirmatory program V2.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

As we discussed today I prepared a new flow chart as a basis of our meeting tomorrow.

We are fine with two drains and refills directly after another.

Our mayor concern is still the start adaption. So we just want to make sure that whenever there is a drain, the engine is warmed up and that we get the chance to look at the adaption values.

As I promised here is a short description about what we look at:

Our values are in the table 104 (Messwerteblock) of the printout.

In this block it shows 4 values.

1. value: Engine temperature in the moment
2. value: fuel injection factor in the temperature range of -10°C to 0°C
3. value: fuel injection factor in the temperature range of 0°C to 17°C
4. value: fuel injection factor in the temperature range of 17°C to 60°C

It would be great if we can talk about the procedure tomorrow. I will be there about 9.30 am and Marc will join the guys in the shop about 8 am.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4211

Cell: (248) 736-3487

FAX: (248) 754-4207

E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 10/15/2010 9:52:30 PM
Subject: 8AD XV03.1374 Confirmatory Testings EPA
[requested test procedure confirmatory program V3.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Attached you will find the updated version of the flow chart with what we discussed.

I hope I have everything included.

Please let me know if there needs to be something changed or added.

I will be in Ann Arbor at Monday morning about 8.00 am.

Thank you very much.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: Vincent Mazaitis/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Mon 10/18/2010 10:11:19 PM
Subject: RE: 8AD XV03.1374 Confirmatory Testings EPA
requested test procedure confirmatory program V4.pdf

Hello Lynn,

I updated the flow chart again in order to follow what I discussed with Vince.

I will be in Ann Arbor tomorrow morning as well. If you have any questions, just let me know.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Monday, October 18, 2010 9:29 AM
To: Berenz, Sebastian
Subject: Re: 8AD XV03.1374 Confirmatory Testings EPA

Hi, Sebastian.

I reviewed the updated version of the flow chart that you attached to the e-mail and it does reflect all of the changes that we discussed. I will forward the procedure to URS.

Thank you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>

To: Lynn Sohacki/AA/USEPA/US@EPA

Date: 10/15/2010 05:53 PM

Subject: 8AD XV03.1374 Confirmatory Testings EPA

Hello Lynn,

Attached you will find the updated version of the flow chart with what we discussed.

I hope I have everything included.

Please let me know if there needs to be something changed or added.

I will be in Ann Arbor at Monday morning about 8.00 am.

Thank you very much.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

[attachment "requested test procedure confirmatory program V3.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 10/19/2010 1:49:44 PM
Subject: Re: Bentley Mulsanne Tests

I talked to the lab and they will put the charger on it.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: Vincent Mazaitis/AA/USEPA/US@EPA
Date: 10/15/2010 07:32 AM
Subject: Bentley Mulsanne Tests

Hello Jim,

Bentley has requested a retest for the FTP and US06 tests. Please let me know when the tests have been scheduled.

Bentley has accepted the highway test results.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
From: "Rhodes, Brian"
Sent: Tue 10/19/2010 3:03:23 PM
Subject: Updated Vehicle Test Parameters
[In-Use Parameters Form N001RXX-0018C.pdf](#)
[In-Use Parameters Form N001RXX-0043c-Ex. 6.pdf](#)
[In-Use Parameters Form N001RXX-0055C.pdf](#)
sebastian.berenz@vw.com
<http://www.volkswagen.com>

Hello Lynn,

Attached you will find the updated test parameters for all three Audis.

I changed the statement if a car is an front wheel drive or an all wheel drive.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: _____

Date: _____

EG&G Representative: _____

Date: _____

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

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B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

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(attach any additional information from the manufacturer to this form)
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Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



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Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

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Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
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- * Other (specify)

Manufacturer Representative: _____

Date: _____

EG&G Representative: _____

Date: _____

EPA Representative:

Date:

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 10/20/2010 1:31:30 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N001RXX-0080C (2008 Audi/A6) - VIN# Ex. 6 10/27/10 (Wednesday) 0900 vehicle pick up

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Wed 10/20/2010 1:58:59 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N001RXX-0055C.pdf
requested test procedure confirmatory program V4.pdf

Hello Lynn,

See attached files for the 4th cars coming in.
We will be in Ann Arbor to do the inspection with you.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, October 20, 2010 9:32 AM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N001RXX-0080C (2008 Audi/A6) - VIN# Ex. 6 10/27/10
(Wednesday) 0900 vehicle pick up

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki

Environmental Protection Agency

(734)214-4851

(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: _____

Date: _____

EG&G Representative: _____

Date: _____

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

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- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: _____

Date: _____

EG&G Representative: _____

Date: _____

EPA Representative:

Date:

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Wed 10/20/2010 7:01:35 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N001RXX-0080C.pdf
requested test procedure confirmatory program V4.pdf

Hello Lynn,

You are right. I'm very sorry I send you the wrong sheet.

Attached you will find the correct one.

There is no difference except the control number. Both cars are Audi A6 all wheel drives.

Sorry for that.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, October 20, 2010 2:58 PM
To: Berenz, Sebastian
Subject: RE: In-use vehicles scheduled for next week

Hi, Sebastian.

It was brought to my attention that the control number on the parameters sheet is incorrect (N001RXX-0055C instead of N001RXX-0080C). Is the information in the sheet also for N001RXX-0055C?

Lynn Sohacki

Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>

To: Lynn Sohacki/AA/USEPA/US@EPA

Date: 10/20/2010 09:59 AM

Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

See attached files for the 4th cars coming in.
We will be in Ann Arbor to do the inspection with you.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Wednesday, October 20, 2010 9:32 AM

To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N001RXX-0080C (2008 Audi/A6) - VIN# **Ex. 6** 10/27/10
(Wednesday) 0900 vehicle pick up

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, EG&G, and lab personnel. Paper copies or e-mails sent directly to EG&G or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls) (See attached file: In-Use Parameters Form_N001RXX-0055C.pdf)(See attached file: requested test procedure confirmatory program V4.pdf)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 10/21/2010 7:36:00 PM
Subject: N001RXX-0018C
In-Use Parameters FormV2_N001RXX-0018C.pdf
sebastian.berenz@vw.com

Hello Lynn,

I have attached I have an updated version of the cars parameters.

You are right with the desmo.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

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National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

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- * Letter, e-mail, fax or other document delivered from the manufacturer
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- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 10/21/2010 7:41:41 PM
Subject: Re: N001RXX-0018C
sebastian.berenz@vw.com

Thank you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 10/21/2010 03:37 PM
Subject: N001RXX-0018C

Hello Lynn,

I have attached I have an updated version of the cars parameters.
You are right with the desmo.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!
[attachment "In-Use Parameters FormV2_N001RXX-0018C.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 10/21/2010 8:09:32 PM
Subject: A6 quattro updates
[In-Use Parameters FormV2_N001RXX-0080C.pdf](#)
[In-Use Parameters FormV2_N001RXX-0055C.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

I had to update the A6 quattro parameters as well. The weight wasn't correct in it.

Attached you will find the updated versions.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 10/21/2010 8:38:43 PM
Subject: FW: A6 quattro updates
[In-Use Parameters FormV3 N001RXX-0055C.pdf](#)
[In-Use Parameters FormV3 N001RXX-0080C.pdf](#)
[In-Use Parameters FormV2 N001RXX-0018C.pdf](#)
[In-Use Parameters FormV2 N001RXX-0043c.pdf](#)
sebastian.berenz@vw.com
sebastian.berenz@vw.com

STOP:

Hello Lynn,

By looking at all sheets again, I noticed that I send you the wrong versions for both A6 again.

The weight was wrong in the sheets. It needs to be 4250 lbs and not 4500 lbs. Sorry for that. Please take these attached sheets V3.

That is for car #0080 and #0055.

I also attached the parameters for car #0018. There is no change in it! I just wanted to make sure that you have all of our data in one mail.

The big problem is that for car #0043 we used the wrong parameters. The car has been already tested today.

I updated them. See attached sheet V2.

Please let me know what you decide on this.

I'm very sorry for all that misunderstandings!

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211

Cell: (248) 736-3487

FAX: (248) 754-4207

E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

From: Berenz, Sebastian
Sent: Thursday, October 21, 2010 4:10 PM
To: 'Sohacki.Lynn@epamail.epa.gov'
Subject: A6 quattro updates

Hello Lynn,

I had to update the A6 quattro parameters as well. The weight wasn't correct in it.

Attached you will find the updated versions.

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211

Cell: (248) 736-3487

FAX: (248) 754-4207

E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: _____ Date: _____

EG&G Representative: _____ Date: _____

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mpH

C Lb-force*mpH²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

After starting the vehicle press ESP-Button and keep pressing for 3 second to disable the traction control.

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 10/22/2010 2:56:48 PM
Subject: test parameter list
[Road parameters list.pdf](#)
sebastian.berenz@vw.com

Hello Lynn,

Attached you will find a list of all test parameters of all types of cars that are certified in the testgroup 8AD XV03.1374.

I hope this fits into what you need.

Is there a chance to get the results of the first A4 from yesterday?

Thank you very much and sorry again for all that mistakes.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487

FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!



vehicle parameters

Testgroup: 8ADXV03.1374

EVAP Family: 8ADXR0140282

				transmission	tank capacity total [gallon]	40% tank capacity total [gallon]	weight [lbs]	Target Coeff A [lb-force]	Target Coeff B [lb-force*mph]	Target Coeff C [lb-force*mph²]
Audi	A4	Sedan	front wheel drive	automatic	18.5	7.4	3875	31.92	0.235	0.0176
Audi	A4	Sedan	all wheel drive	automatic	16.6	6.64	4000	37.77	0.467	0.0182
Audi	A4	Sedan	all wheel drive	manual	16.6	6.64	4000	30.8	0.311	0.0177
Audi	A4	Cabrio	all wheel drive	automatic	16.6	6.64	4500	40.02	0.463	0.0177
Audi	A4	Avant	front wheel drive	automatic	18.5	7.4	4000	31.92	0.235	0.0176
Audi	A4	Avant	all wheel drive	automatic	16.6	6.64	4250	37.77	0.467	0.0182
Audi	A6	Sedan	front wheel drive	automatic	18.5	7.4	4250	40.69	0.246	0.0171
Audi	A6	Sedan	all wheel drive	automatic	16.6	6.64	4250	38.22	0.47	0.0172
Audi	A6	Avant	all wheel drive	automatic	16.6	6.64	4500	38.22	0.47	0.0172

**VWGoA
EEO
10/22/2010**

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 10/22/2010 3:02:11 PM
Subject: Re: test parameter list
sebastian.berenz@vw.com

Thank you, Sebastian. This is just what I was looking for.

I think that I can get the official data to you but I have not received it yet.

Have a nice weekend!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 10/22/2010 10:57 AM
Subject: test parameter list

Hello Lynn,

Attached you will find a list of all test parameters of all types of cars that are certified in the testgroup 8AD XV03.1374.

I hope this fits into what you need.

Is there a chance to get the results of the first A4 from yesterday?

Thank you very much and sorry again for all that mistakes.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
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Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!
[attachment "Road parameters list.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: mike.hennard@VW.com[]
Cc: CN=Tom Ball/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 10/22/2010 5:59:22 PM
Subject: More information re the Audi Q7
mike.hennard@vw.com

Hi, Mike.

We are still waiting for some answers to questions regarding Q7 class that were brought up during our 7/29/10 meeting. Specifically, was the MIL on when VW recruited Ex. 6? Please give us a description of the fault that was recorded that led to the VW fix. What were the number of warranty claims for the component that was replaced on Ex. 6?

Thank you in advance for your answers.

Sincerely,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 10/22/2010 01:40 PM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Hennard, Mike" <mike.hennard@vw.com>
Date: 08/12/2010 04:27 PM
Subject: Re: VW Presentations - July 29

Hi, Mike.

We are wondering if you have answers to the other questions that we posed to VW during our meeting. Specifically, you were going to investigate whether the MIL was on or if any fault codes were set when VW recruited vehicle with VIN ending 1590 after it failed at EPA.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Hennard, Mike" <mike.hennard@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/05/2010 09:33 AM
Subject: VW Presentations - July 29

Lynn:

As you requested, here are PDF format copies of presentation we gave in July 29th meeting at your office.

One additional question, can you supply EPA data sheet for 3.1L vehicles (similar to data sent for 4.2L vehicles).

Michael Hennard

Manager - Emissions Compliance EEO

Volkswagen Group of America

3800 Hamlin Road

Auburn Hills, MI 48326

Telephone Number: 248 754 4202

Fax: 248 754 4207

mike.hennard@vw.com

[attachment "Meeting_EPA_Surveillance_8AD XV03 1374 work to EPA.pdf" deleted by Lynn Sohacki/AA/USEPA/US] [attachment "Surveillance_7ADXT04.2358 epa.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: mike.hennard@VW.com[]
Cc: CN=Tom Ball/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 10/22/2010 5:59:22 PM
Subject: More information re the Audi Q7
mike.hennard@vw.com

Hi, Mike.

We are still waiting for some answers to questions regarding Q7 class that were brought up during our 7/29/10 meeting. Specifically, was the MIL on when VW recruited Ex. 6 Please give us a description of the fault that was recorded that led to the VW fix. What were the number of warranty claims for the component that was replaced on Ex. 6?

Thank you in advance for your answers.

Sincerely,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 10/22/2010 01:40 PM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Hennard, Mike" <mike.hennard@vw.com>
Date: 08/12/2010 04:27 PM
Subject: Re: VW Presentations - July 29

Hi, Mike.

We are wondering if you have answers to the other questions that we posed to VW during our meeting. Specifically, you were going to investigate whether the MIL was on or if any fault codes were set when VW recruited vehicle with VIN ending Ex. 6 after it failed at EPA.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Hennard, Mike" <mike.hennard@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Cc: "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>, "Johnson, Stuart" <Stuart.Johnson@vw.com>
Date: 08/05/2010 09:33 AM
Subject: VW Presentations - July 29

Lynn:

As you requested, here are PDF format copies of presentation we gave in July 29th meeting at your office.

One additional question, can you supply EPA data sheet for 3.1L vehicles (similar to data sent for 4.2L vehicles).

Michael Hennard

Manager - Emissions Compliance EEO

Volkswagen Group of America
3800 Hamlin Road
Auburn Hills, MI 48326

Telephone Number: 248 754 4202

Fax: 248 754 4207

mike.hennard@vw.com

[attachment "Meeting_EPA_Surveillance_8AD XV03 1374 work to EPA.pdf" deleted by Lynn Sohacki/AA/USEPA/US] [attachment "Surveillance_7ADXT04.2358 epa.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Mon 10/25/2010 5:42:31 PM
Subject: N001-0043c data with incorrect weight
[N001RXX-0043C.pdf](#)
(embedded image)

Hi, Sebastian.

Here is the data for the above vehicle. As I mentioned, this data will be completely replaced by the next test which will be run with the correct weight.

Please let me know if you have any questions.

Regards,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

C15D

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Information

Test Number: 2010-0367-002

Vehicle ID: N001RXX-0043C

Test Date: 10/21/2010

MFR Name: AUDI

Key Start / Hot Soak: 13:11:48 / 09:48

MFR Codes: 640

ADX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)

Shift Schedule: A09980005

Calculation Method: Gasoline

Beginning Odometer: 007933.0 MI

Pretest Remarks:

Drive Schedule: ftp3bag

Soak Period: 29.6 hours

Bag Data**Phase 1**

	<u>HC-FID</u> (ppmC)	<u>CO</u> (ppm)	<u>NOx</u> (ppm)	<u>CO2</u> (%)	<u>CH4</u> (ppm)	<u>NonMeth HC</u> (ppmC)
Sample	19.025	39.882	2.134	1.042	3.315	
Ambient	2.468	0.000	0.005	0.042	1.886	
Net Concentration	16.750	39.882	2.129	1.003	1.577	14.948

Remarks:

Phase 2

Sample	2.346	0.184	0.214	0.667	1.802	
Ambient	2.429	0.000	0.007	0.042	1.885	
Net Concentration	0.037	0.184	0.207	0.628	0.010	0.026

Remarks:

Phase 3

Sample	2.610	4.538	0.974	0.889	1.893	
Ambient	2.452	0.000	0.006	0.042	1.884	
Net Concentration	0.321	4.538	0.968	0.850	0.134	0.168

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	<u>HC-FID</u> (gpm)	<u>CO</u> (gpm)	<u>NOx</u> (gpm)	<u>CO2</u> (gpm)	<u>CH4</u> (gpm)	<u>NMHC</u> (gpm)	<u>Vol MPG</u> (mpg)
Phase 1	0.208	1.002	0.080	396.0	0.023	0.186	22.327
Phase 2	0.001	0.007	0.012	396.1	0.000	0.001	22.445
Phase 3	0.004	0.114	0.036	337.1	0.002	0.002	26.359
Weighted	0.04474	0.24325	0.03304	379.856	0.00536	0.03944	

Fuel Economy

	<u>Gasoline MPG</u>
Phase 1	22.30
Phase 2	22.42
Phase 3	26.33

Dyno Settings

Dyno #: D329 - FWD

Inertia: 4000

EPA Set Co A: 8.68

EPA Set Co B: 0.4497

EPA Set Co C: 0.01717

Weighted 23.34

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2010-0367-002

Vehicle ID: N001RXX-0043C

Results	HC-FID	CO	NOx	CO2	CH4	NMHC	Meth Response
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	1.143
Phase 1	0.747	3.590	0.286	1419.5	0.081	0.666	
Phase 2	0.003	0.028	0.048	1521.4	0.001	0.002	
Phase 3	0.014	0.410	0.131	1208.5	0.007	0.008	



Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.86	28.86	28.87	
Avg Cell Temp (degF)	74.49	75.17	74.47	
Dew Point (degF)	49.12	49.05	49.17	
Specific Humidity (grains/lbm)	53.72	53.58	53.80	
NOx Corr Factor	0.9091	0.9085	0.9094	
CO2 Dilution Factor	12.788	20.074	15.058	
CFV Vmix (scf @68F)	2730.44	4678.11	2743.12	
 CVS Flow Rate Avg (scfm)	 323.13	 322.41	 324.95	
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.00	870.60	506.51	
Distance (miles)	3.585	3.841	3.585	
Bag Analysis Time (secs)	880.1	1110.2	120.6	

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

10/21/10

C15D

NVFEL Laboratory Test Data Final Laboratory Test Results

CVS

Test Number: 2010-0367-003

Vehicle ID: N001RXX-0043C

Test Information

Test Date: 10/21/2010

MFR Name: AUDI

Key Start: 14:31:50

MFR Codes: 640

ADX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Shift Schedule: A09980011

Calculation Method: Gasoline

Beginning Odometer: 007943.0 MI

Pretest Remarks:

Drive Schedule: hwfet_hwfet

Bag Data**Phase 1**

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.407	19.978	0.297	1.211	1.979	
Ambient	2.478	0.000	0.002	0.042	1.886	
Net Concentration	1.153	19.978	0.295	1.173	0.264	0.851

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.008	0.264	0.006	243.8	0.002	0.006	36.400

Fuel Economy

Gasoline MPG
Phase 1 36.36

Dyno Settings

Dyno #: D329 - FWD

Inertia: 4000

EPA Set Co A: 8.68

EPA Set Co B: 0.4497

EPA Set Co C: 0.01717

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2010-0367-003

Vehicle ID: N001RXX-0043C

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.077	2.703	0.060	2494.6	0.020	0.057	1.143

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.87			
Avg Cell Temp (degF)	75.18			
Dew Point (degF)	49.09			
Specific Humidity (grains/lbm)	53.63			
NOx Corr Factor	0.9087			
CO2 Dilution Factor	11.041			
CFV Vmix (scf @68F)	4104.25			
 CVS Flow Rate Avg (scfm)	 321.90			
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	765.00			
Distance (miles)	10.231			
Bag Analysis Time (secs)	104.8			

I have validated the data in accordance with the requirements of TP 730

Validated By:  Date: 10/21/10



N001RXX-0043C.pdf

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Mon 10/25/2010 6:07:24 PM
Subject: RE: N001-0043c data with incorrect weight

Hello Lynn,

Thank you very much.

Sebastian

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Monday, October 25, 2010 1:43 PM

To: Berenz, Sebastian

Subject: N001-0043c data with incorrect weight

Hi, Sebastian.

Here is the data for the above vehicle. As I mentioned, this data will be completely replaced by the next test which will be run with the correct weight.

Please let me know if you have any questions.

Regards,

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

(See attached file: N001RXX-0043C.pdf)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Mon 10/25/2010 7:09:52 PM
Subject: Test results N001RXX-0043C
sebastian.berenz@vw.com

Hello Lynn,

I looked at the "unofficially" test results of car N001RXX-0043C, which were quite good.

The car passed the standards even under harder conditions like the heavier weight and stronger coefficients from the all wheel drive version.

That shows from Volkswagen's point of view that the system is working fine.

So Volkswagen would definitely accept these results. If you like to give the car back to the customer and save another test on this car, it would be fine with us.

We are looking forward to get results from the other cars that we inspected in your lab.

Let me know if this would work out for you.

Thank you very much.

Best regards

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211

Cell: (248) 736-3487

FAX: (248) 754-4207

E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Mon 10/25/2010 8:34:23 PM
Subject: Re: Test results N001RXX-0043C
sebastian.berenz@vw.com

Hi, Sebastian.

We will test the vehicle with the correct weight but I appreciate your e-mail.

Thanks

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 10/25/2010 03:10 PM
Subject: Test results N001RXX-0043C

Hello Lynn,

I looked at the "unofficially" test results of car N001RXX-0043C, which were quite good.
The car passed the standards even under harder conditions like the heavier weight and stronger coefficients from the all wheel drive version.
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Thank you very much.

Best regards

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: "Thomas, Richard" [Richard.Thomas@vw.com]; N=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Thur 10/28/2010 1:24:55 PM
Subject: Re: Bentley Mulsanne Release

I signed the vehicle release. Let us know when you plan on picking it up and I'll warn Ben.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Thomas, Richard" <Richard.Thomas@vw.com>
Date: 10/28/2010 08:24 AM
Subject: Bentley Mulsanne Release

Hello Jim,

Bentley has accepted the test results for the Mulsanne (vehicle ID: 15113) and it can be released for pick up.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 10/28/2010 5:25:29 PM
Subject: Test data for in-use vehicle N001-0018c
[N001RXX-0018C.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

CISD
CVSNVFEL Laboratory Test Data
Final Laboratory Test Results

Test Number: 2011-0002-003

Vehicle ID: N001RXX-0018C

Test Information



Test Date: 10/27/2010

Key Start: 14:24:34

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 022952.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>
<u>Phase 1</u>	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	4.019	51.332	0.207	1.232	2.209	
Ambient	2.551	0.000	0.010	0.043	1.904	
Net Concentration	1.704	51.332	0.198	1.193	0.481	1.154

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.011	0.674	0.004	246.0	0.004	0.008	35.981

Fuel Economy

Phase 1 Gasoline MPG 35.95

Dyno Settings

Dyno #: D329 - AWD

Inertia: 4000

EPA Set Co A: -2.42

EPA Set Co B: 0.1225

EPA Set Co C: 0.01689

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0002-003

Vehicle ID: N001RXX-0018C

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.113	6.896	0.040	2518.4	0.037	0.077	1.143

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.67			
Avg Cell Temp (degF)	75.24			
Dew Point (degF)	49.00			
Specific Humidity (grains/lbm)	53.84			
NOx Corr Factor	0.9095			
CO2 Dilution Factor	10.825			
CFV Vmix (scf @68F)	4074.58			

CVS Flow Rate Avg (scfm) 319.53

Fan Placement: One Fan - Up - Front

Phase Time (secs)	765.10
Distance (miles)	10.237
Bag Analysis Time (secs)	104.8

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

10/27/10

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0002-002

Vehicle ID: N001RXX-0018C

Test Information


 Test Date: 10/27/2010
 Key Start / Hot Soak: 13:10:40 / 09:43

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name AUDI

MFR Codes: 640 ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980005

Beginning Odometer: 022941.0 MI

Drive Schedule: ftp3bag

Soak Period: 20.5 hours

Bag Data

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	22.296	73.430	1.671	1.115	3.497	
Ambient	2.474	0.000	0.013	0.043	1.910	
Net Concentration	20.030	73.430	1.660	1.075	1.747	18.033

Remarks:

Phase 2

Sample	2.726	9.306	0.045	0.714	1.879	
Ambient	2.403	0.000	0.014	0.043	1.907	
Net Concentration	0.451	9.306	0.031	0.673	0.074	0.366

Remarks:

Phase 3

Sample	4.263	20.089	0.598	0.937	2.131	
Ambient	2.412	0.000	0.013	0.044	1.905	
Net Concentration	2.021	20.089	0.586	0.896	0.359	1.610

Remarks:

Phase 4

 Sample
 Ambient
 Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.248	1.839	0.062	423.2	0.025	0.224	20.827
Phase 2	0.009	0.370	0.002	420.6	0.002	0.007	21.109
Phase 3	0.025	0.503	0.022	352.4	0.005	0.020	25.165
Weighted	0.06290	0.71059	0.01983	402.413	0.00748	0.05551	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #: D329 - AWD
Phase 1	20.81		Inertia: 4000
Phase 2	21.09		EPA Set Co A: -2.42
Phase 3	25.14		EPA Set Co B: 0.1225
			EPA Set Co C: 0.01689
Weighted	22.02		Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0002-002

Vehicle ID: N001RXX-0018C

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.889	6.580	0.222	1514.4	0.090	0.800	1.143
Phase 2	0.034	1.428	0.007	1621.8	0.007	0.028	
Phase 3	0.090	1.804	0.079	1264.4	0.018	0.072	

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.70	28.69	28.68	
Avg Cell Temp (degF)	74.72	74.32	74.80	
Dew Point (degF)	48.99	49.03	48.97	
Specific Humidity (grains/lbm)	53.77	53.86	53.76	
NOx Corr Factor	0.9093	0.9096	0.9092	
CO2 Dilution Factor	11.915	18.745	14.263	
CFV Vmix (scf @68F)	2717.94	4652.68	2723.03	
CVS Flow Rate Avg (scfm)	321.71	320.73	322.70	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	506.90	870.40	506.30	
Distance (miles)	3.578	3.856	3.587	
Bag Analysis Time (secs)	879.9	1104.8	120.0	

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 10/29/2010 2:11:17 PM
Subject: Test data for in-use vehicle N001-0043c
[N001RXX-0043C.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results							
Test Number: 2010-0367-005			Vehicle ID: N001RXX-0043C				
Test Date: 10/28/2010			MFR Name: AUDI				
Key Start / Hot Soak: 13:01:06 / 09:31			MFR Codes: 640		ADX		
Fuel Container ID: F00023			Config #: 00				
Fuel Type: 61 Tier 2 Cert Test Fuel			Transmission: AUTO				
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp			Shift Schedule: A09980005				
Calculation Method: Gasoline			Beginning Odometer: 008000.0 MI				
Pretest Remarks:			Drive Schedule: ftp3bag				
			Soak Period: 20.1 hours				
Bag Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	21.508	46.088	2.327	1.007	3.781		
Ambient	2.509	0.000	0.011	0.042	1.890		
Net Concentration	19.189	46.088	2.317	0.969	2.034	16.864	
Remarks:							
Phase 2							
Sample	2.416	1.333	0.195	0.645	1.812		
Ambient	2.463	0.000	0.012	0.042	1.891		
Net Concentration	0.071	1.333	0.184	0.605	0.012	0.057	
Remarks:							
Phase 3							
Sample	2.742	2.410	2.082	0.835	1.925		
Ambient	2.589	0.000	0.012	0.042	1.887		
Net Concentration	0.314	2.410	2.071	0.796	0.156	0.136	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks:							
Results	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.240	1.163	0.087	384.0	0.029	0.211	22.997
Phase 2	0.001	0.054	0.011	383.1	0.000	0.001	23.202
Phase 3	0.004	0.061	0.078	316.4	0.002	0.002	28.090
Weighted	0.05159	0.28592	0.04523	364.951	0.00687	0.04480	
Fuel Economy	<u>Gasoline MPG</u>	<u>Dyno Settings</u>					<u>Dyno #:</u> D329 - FWD
Phase 1	22.97						Inertia: 3875
Phase 2	23.18						EPA Set Co A: 3.62
Phase 3	28.06						EPA Set Co B: 0.2701
							EPA Set Co C: 0.01611
Weighted	24.29						Emiss-Bench: Mexa 7200sle

v101007 - d329 EPAVDAEm101028124458

Page 1 of 2

Print Time 28-Oct-2010 13:54

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0367-005

Vehicle ID: N001RXX-0043C

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.861	4.175	0.312	1378.9	0.106	0.757	1.143
Phase 2	0.005	0.207	0.042	1474.0	0.001	0.004	
Phase 3	0.014	0.219	0.280	1136.6	0.008	0.006	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.02	29.02	29.03	
Avg Cell Temp (degF)	74.70	74.86	74.54	
Dew Point (degF)	48.93	48.90	48.95	
Specific Humidity (grains/lbm)	53.04	52.98	53.07	
NOx Corr Factor	0.9065	0.9062	0.9065	
CO2 Dilution Factor	13.216	20.775	16.044	
CFV Vmix (scf @68F)	2747.50	4701.77	2756.93	
CVS Flow Rate Avg (scfm)	325.15	324.26	326.71	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.00	870.00	506.30	
Distance (miles)	3.591	3.847	3.592	
Bag Analysis Time (secs)	879.5	1092.8	120.6	

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: 10-28-10

C15D

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0367-006

Vehicle ID: N001RXX-0043C

Test Information

Test Date: 10/28/2010

Key Start: 14:14:27

MFR Name: AUDI

MFR Codes: 640

ADX

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Config #: 00

Transmission: AUTO

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Shift Schedule: A09980011

Calculation Method: Gasoline

Beginning Odometer: 008011.0 MI

Pretest Remarks:

Drive Schedule: hwfet_hwfet



Bag Data

Phase 1

	HC-FID	CO	NOx	CO2	CH4	NonMeth HC
	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	3.750	15.119	0.269	1.116	2.043	
Ambient	2.696	0.000	0.007	0.042	1.883	
Net Concentration	1.278	15.119	0.263	1.077	0.317	0.916

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID	CO	NOx	CO2	CH4	NMHC	Vol MPG
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.008	0.201	0.005	225.4	0.002	0.006	39.386

Fuel Economy

Gasoline MPG

Phase 1

39.35

Dyno Settings

Dyno #: D329 - FWD

Inertia: 3875

EPA Set Co A: 3.62

EPA Set Co B: 0.2701

EPA Set Co C: 0.01611

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2010-0367-006

Vehicle ID: N001RXX-0043C

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.086	2.058	0.053	2304.6	0.025	0.062	1.143

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.03			
Avg Cell Temp (degF)	74.78			
Dew Point (degF)	48.91			
Specific Humidity (grains/lbm)	52.98			
NOx Corr Factor	0.9062			
CO2 Dilution Factor	11.991			
CFV Vmix (scf @68F)	4128.61			

CVS Flow Rate Avg (scfm) 323.77

Fan Placement: One Fan - Up - Front

Phase Time (secs)	765.10
Distance (miles)	10.225
Bag Analysis Time (secs)	104.8

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: Sohacki.Lynn@epamail.epa.gov[]
From: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US
Sent: Tue 11/2/2010 11:29:08 AM
Subject: 0055C

Good morning Sebastian,

The Subject vehicle will Roadload and prep tomorrow (11/3/10) and test Thursday 11/4/10. I'll contact you as soon as I can get a probable start time.

Thanks Sebastian,

Vince Mazaitis

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 11/4/2010 5:13:28 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0162 (2008 VW/Passat) - VIN# Ex. 6, 11/08/10 (Monday) 1200 Incoming.

Please send the following to me for these vehicles before pick-up. Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Thur 11/4/2010 6:20:20 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N148RXX-0162 WWWUK73C38E164190.pdf
Fuel Drain Instructions.pdf

Hello Lynn,

Attached you will find the parameters for the 2.0 Passat.

Let me know when we should be in Ann Arbor for the inspection on Monday.

If you have any results for the Audi A6 3.1l, it would be great if you can forward them to me.

Thank you very much.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, November 04, 2010 1:13 PM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0162 (2008 VW/Passat) - VIN# Ex. 6 11/08/10

(Monday) 1200 Incoming.

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? N (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Sebastian Berenz VWGoA

Date: 11/4/2010

EG&G Representative:

Date:

EPA Representative:

Date:

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 11/4/2010 6:34:45 PM
Subject: RE: In-use vehicles scheduled for next week

Thank you, Sebastian.

John White of URS will probably be calling you about the maintenance time.

I haven't gotten the official data for the Audi A-6 yet. I'll forward it to you as soon as possible.

Regards.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 11/04/2010 02:21 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

Attached you will find the parameters for the 2.0 Passat.

Let me know when we should be in Ann Arbor for the inspection on Monday.

If you have any results for the Audi A6 3.1l, it would be great if you can forward them to me.

Thank you very much.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, November 04, 2010 1:13 PM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0162 (2008 VW/Passat) - VIN# **Ex. 6** 11/08/10
(Monday) 1200 Incoming.

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-

04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851

(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)

[attachment "In-Use Parameters Form_N148RXX-0162" deleted by Lynn
Sohacki/AA/USEPA/US] **Ex. 6** [attachment "Fuel Drain Instuctions.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

Ex. 6

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 11/5/2010 2:14:09 PM
Subject: Test data for in-use vehicle N001-0055c
[N001RXX-0055C.pdf](#)

Hi, Bernard,

The data for the above vehicle is attached. Please give me a call if you have any questions.

Have a nice weekend!

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

CISD

NVFEL Laboratory Test Data Final Laboratory Test Results

CVS

Test Number: 2011-0010-003

Vehicle ID: N001RXX-0055C

Test Information

Test Date: 11/4/2010
Key Start: 10:04:32
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980011
Beginning Odometer: 015236.0 MI
Drive Schedule: hwfet_hwfet

Bag Data**Phase 1**

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	4.233	39.317	0.458	1.309	2.143	
Ambient	3.098	0.000	0.028	0.045	2.052	
Net Concentration	1.439	39.317	0.432	1.268	0.292	1.106

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.009	0.519	0.009	263.0	0.002	0.007	33.694

Fuel Economy**Gasoline MPG**

Phase 1 33.66

Dyno Settings

Dyno #: D329 - AWD
Inertia: 4250
EPA Set Co A: 5.03
EPA Set Co B: 0.2051
EPA Set Co C: 0.01729

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0010-003

Vehicle ID: N001RXX-0055C

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.096	5.313	0.087	2693.3	0.023	0.074	1.143

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.77			
Avg Cell Temp (degF)	74.93			
Dew Point (degF)	49.11			
Specific Humidity (grains/lbm)	53.87			
NOx Corr Factor	0.9097			
CO2 Dilution Factor	10.201			
CFV Vmix (scf @68F)	4098.95			
CVS Flow Rate Avg (scfm)	321.44			
Fan Placement:	One Fan - Up - Front			
Phase Time (secs)	765.10			
Distance (miles)	10.239			
Bag Analysis Time (secs)	105.9			

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

C15D

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0010-002

Vehicle ID: N001RXX-0055C

Test Information


 Test Date: 11/4/2010
 Key Start / Hot Soak: 08:45:56 / 10:08

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name AUDI

MFR Codes: 640 ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980005

Beginning Odometer: 015225.0 MI

Drive Schedule: ftp3bag

Soak Period: 16.9 hours

Bag Data

	HC-FID	CO	NOx	CO2	CH4	NonMeth HC
	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	25.212	57.960	2.096	1.160	3.846	
Ambient	3.284	0.000	0.030	0.045	2.044	
Net Concentration	22.215	57.960	2.069	1.119	1.980	19.951

Remarks:

Phase 2

Sample	3.572	9.497	0.034	0.737	1.990	
Ambient	3.411	0.000	0.028	0.044	2.040	
Net Concentration	0.349	9.497	0.007	0.696	0.062	0.278

Remarks:

Phase 3

Sample	6.621	35.809	0.415	0.975	2.407	
Ambient	3.261	0.000	0.027	0.045	2.037	
Net Concentration	3.598	35.809	0.390	0.933	0.518	3.006

Remarks:

Phase 4

Sample	
Ambient	
Net Concentration	

Remarks:

Results

	HC-FID	CO	NOx	CO2	CH4	NMHC	Vol MPG
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.275	1.451	0.077	440.2	0.028	0.247	20.053
Phase 2	0.007	0.379	0.000	436.0	0.001	0.005	20.363
Phase 3	0.045	0.899	0.015	368.1	0.007	0.037	24.055
Weighted	0.07294	0.74397	0.02027	418.197	0.00867	0.06437	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #:
Phase 1	20.03		D329 - AWD
Phase 2	20.34		Inertia: 4250
Phase 3	24.03		EPA Set Co A: 5.03
			EPA Set Co B: 0.2051
			EPA Set Co C: 0.01729
Weighted	21.18		Emiss-Bench: Mexa 7200sle

v101007 - d329 EPAVDAEm101104080912

Page 1 of 2

Print Time 04-Nov-2010 09:43

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0010-002

Vehicle ID: N001RXX-0055C

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.988	5.204	0.277	1578.7	0.102	0.887	1.143
Phase 2	0.027	1.461	0.002	1682.0	0.005	0.021	
Phase 3	0.161	3.232	0.053	1323.2	0.027	0.134	

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	28.77	28.77	28.77	
Avg Cell Temp (degF)	74.31	75.28	73.73	
Dew Point (degF)	49.19	49.00	49.07	
Specific Humidity (grains/lbm)	54.05	53.65	53.77	
NOx Corr Factor	0.9104	0.9088	0.9093	
CO2 Dilution Factor	11.469	18.138	13.688	
CFV Vmix (scf @68F)	2723.10	4666.80	2737.65	
 CVS Flow Rate Avg (scfm)	 322.20	 321.66	 324.11	
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.10	870.50	506.80	
Distance (miles)	3.586	3.858	3.595	
Bag Analysis Time (secs)	880.0	1129.4	121.0	

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 11/9/2010 1:42:17 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N002RXX-0133C (2008 Audi/A6) - VIN# Ex. 6 1000 Veh. Pick up on 11/16/10 (Tuesday)

N001RXX-0136C (2008 Audi/A6) - VIN# Ex. 6 0900 Veh. Pick up on 11/17/10
(Wednesday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Tue 11/9/2010 3:53:24 PM
Subject: RE: In-use vehicles scheduled for next week
[N002RXX-0133C In-Use Parameters Form.pdf](#)
[N001RXX-0136C In-Use Parameters Form.pdf](#)
[requested test procedure confirmatory program V4.pdf](#)

Hello Lynn,

attached you will find the test parameters for two Audis for next week.
I also attached the procedure which we used for the last Audis.

It would be great if you can send me the test results of N001RXX-0080C when they are available.

Please let me know if you have any questions.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, November 09, 2010 8:42 AM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N002RXX-0133C (2008 Audi/A6) - VIN# **Ex. 6** 1000 Veh. Pick up on 11/16/10 (Tuesday)

N001RXX-0136C (2008 Audi/A6) - VIN# **Ex. 6** 0900 Veh. Pick up on 11/17/10 (Wednesday)

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: Date:

EG&G Representative: Date:

EPA Representative: Date:

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 11/9/2010 9:25:43 PM
Subject: Specifications and Calibration information for Power Measurement Shunt
[2010-11-09 07-42-42.pdf](#)
[2010-11-09 07-57-08.pdf](#)

Hello Jim,

Dr. Reisner gave me with some specifications and calibration information for the shunt that VW provided on the Touareg Hybrid to measure the power for the hybrid tests.

He thought that the EPA might want it for documentation. See attachments.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

CALIBRATION CERTIFICATE

Customer _____

HIOKI E.E. CORPORATION

Y. Taki

Inspector

Quality Assurance Department

Model : 9278
Name : UNIVERSAL CLAMP ON CT
Production№ : 090900270

The above listed product(s) is/are calibrated in accordance with the HIOKI standards. This also certifies that all reference instruments used in the calibration process can be traced back to all or some of the official standards laboratories of the nations affiliated with the International Committee for Weights and Measures (CIPM), such as the National Institute of Advanced Industrial Science and Technology, the National Institute of Information and Communications Technology, and NIST (National Institute of Standards and Technology).

Instruments used

Model	Name	Control number	Production number
5520A	CALIBRATOR	000-10-115	8475009
3458A	MULTIMETER	000-20-193	US28030720
6620	PRECISION PHASEMETER	000-21-002	459
R9211B	FFT SERVO ANALYZER	505-55-008	02020139
4025	HIGH SPEED POWER AMPLIFIER/SUPPLY	000-50-079	145901
-----	SHUNT RESISTOR (10Ω)	505-31-087	-----
10A/100mV	TRIAx-SHUNT	000-31-163	R719364

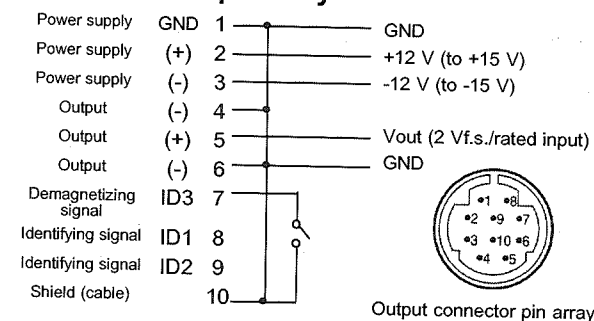
Note: The issuing date of this CALIBRATION CERTIFICATE may differ from the inspection date in the INSPECTION DATA SHEET.

Chapter 3 Specification

Model	9277	9278
Rated current (AC/DC)	20 A f.s.	200 A f.s.
Output voltage (AC/DC)	2 V/20 A	2 V/200 A
The maximum permissible input range (DC to 3 kHz)	50 Arms (75 A peak)	350 Arms (500 A peak)
Input resistance (DC)	Max. 0.05 m Ω	Max. 0.002 m Ω
Output resistance	50 Ω	
Basic accuracy 23 \pm 3°C (73 \pm 5°F)	DC and 45 Hz to 66 Hz, 30 min or more warming-up after degaussing Amplitude: \pm 0.5% rdg. \pm 0.05% f.s. Phase: within \pm 0.2° (DC has no provision)	
Period of guaranteed accuracy	1 year	
Amplitude-frequency characteristic (deviation from accuracy)	DC to 1 kHz 1 k to 50 kHz 50 k to 100 kHz	within \pm 1.0% within \pm 2.5% within \pm 5.0%
Phase-frequency characteristic	DC to 1 kHz 1 k to 50 kHz 50 k to 100 kHz	within \pm 0.5° within \pm 2.5° within \pm 5.0°
Temperature coefficient	Sensitivity: within \pm 0.05% rdg. /°C Offset: within \pm 0.005% f.s. /°C	
Operating temperature and humidity range	0 to 40°C (32 to 104°F), Max. 80%RH (no condensation)	
Storage temperature and humidity range	-10 to 50°C (14 to 122°F), Max. 80%RH (no condensation)	
Effect of conductor position	Within \pm 0.5% (DC, 55 Hz)	Within \pm 1.5% (DC, 55 Hz)

Model	9277	9278
Effect of external magnetic field (400 A/m, 55 Hz and DC)	Max. 0.2 A	Max. 1 A
Dielectric strength	3536 VrmsAC for 15 seconds. (between case and clamp sensor aperture) (between electric circuit and case, between electric circuit and core, between electric circuit and clamp sensor aperture)	
Maximum rated voltage to earth	600 V (CATII), 300 V (CATIII)	
Operating environment	Indoor, <Height 2000 m (6562 feet) ASL	
Diameter of measurable conductors	20 mm (0.79") or less	
Supply voltage	± 12 V to ± 15 V (with accuracy guaranty but tracking)	
Power supply capacity	± 150 mA (with rated input)	± 250 mA (with rated input)
Supply consumption	Max. 3.6 W (with rated input)	Max. 7.2 W (with rated input)
Dimensions and mass	Approx. 176W×69H×27D mm (6.93"W×2.72"H×1.06"D)(excluding projections) Approx. 470 g (16.6 oz.)	
Cord length	Approx. 3 m (9.84 feet)	
Accessories	9375 CARRYING CASE 1 Instruction manual 1 Markband 6 (3 set)	
Standards	Safety: EN61010-2-032:2002 Type B current sensor Measurement category II, III, Pollution Degree 2 (4000 V expected transient Overvoltage) EMC: EN61326:1997+A1:1998+A2:2001 +A3:2003	

Output connector pin array



	9277	9278
ID1	Connect to GND	Connect to GND
ID2	N.C	Connect to GND

Mating receptacle
RM515ERB-10SD (HIROSE)

CAUTION

- Be careful to avoid connecting voltage improperly, as the internal circuitry may be destroyed.
- The capacity of the power supply is at least ± 0.5 A.
- Demagnetization occurs after pin 7 is shorted to ground and then opened.

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 11/10/2010 5:40:18 PM
Subject: Test data for in-use vehicle N001-0080c
[N001RXX-0080C.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

CISD
CVS

NVFEL Laboratory Test Data
Final Laboratory Test Results

Test Number: 2011-0021-003

Vehicle ID: N001RXX-0080C

Test Information



Test Date: 11/9/2010
Key Start: 10:40:00
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetestprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980011
Beginning Odometer: 019997.0 MI
Drive Schedule: hwfetest_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.742	30.032	0.376	0.891	2.339	
Ambient	3.114	0.052	0.060	0.047	2.309	
Net Concentration	0.836	29.984	0.320	0.846	0.184	0.626

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.008	0.579	0.009	257.0	0.002	0.006	34.469

Fuel Economy

Phase 1 Gasoline MPG 34.44

Dyno Settings

Dyno #: D329 - AWD
Inertia: 4250
EPA Set Co A: -0.45
EPA Set Co B: 0.2586
EPA Set Co C: 0.01656

Emiss-Bench: Mexa 7200sie

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0021-003

Vehicle ID: N001RXX-0080C

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.082	5.943	0.095	2636.3	0.021	0.061	1.143

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.13			
Avg Cell Temp (degF)	74.71			
Dew Point (degF)	49.24			
Specific Humidity (grains/lbm)	53.46			
NOx Corr Factor	0.9081			
CO2 Dilution Factor	14.989			
CFV Vmix (scf @68F)	6011.93			
 CVS Flow Rate Avg (scfm)	 471.46			
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	765.10			
Distance (miles)	10.258			
Bag Analysis Time (secs)	104.8			

I have validated the data in accordance with the requirements of TP 730

Validated By:  Date: 11/9/10

CISD
CVS

NVFEL Laboratory Test Data
Final Laboratory Test Results

Test Number: 2011-0021-002

Vehicle ID: N001RXX-0080C

Test Information



Test Date: 11/9/2010
Key Start / Hot Soak: 09:19:10 / 09:37
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980005
Beginning Odometer: 019986.0 MI
Drive Schedule: ftp3bag
Soak Period: 19.8 hours

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	19.545	46.206	2.269	1.147	3.719	
Ambient	3.111	0.011	0.098	0.046	2.259	
Net Concentration	16.702	46.196	2.180	1.104	1.655	14.810

Remarks:

Phase 2

Sample	3.192	12.945	0.072	0.728	2.182	
Ambient	3.077	0.001	0.072	0.045	2.265	
Net Concentration	0.283	12.944	0.004	0.685	0.040	0.237

Remarks:

Phase 3

Sample	3.944	17.670	0.196	0.949	2.415	
Ambient	3.060	0.000	0.058	0.046	2.260	
Net Concentration	1.101	17.670	0.142	0.905	0.315	0.741

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.211	1.177	0.083	442.1	0.024	0.187	19.995
Phase 2	0.006	0.527	0.000	438.5	0.001	0.005	20.238
Phase 3	0.014	0.452	0.005	364.1	0.005	0.009	24.367

Weighted	0.05061	0.64172	0.01881	418.775	0.00677	0.04392	
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Fuel Economy

Gasoline MPG

Phase 1 19.98
Phase 2 20.22
Phase 3 24.34

Dyno Settings

Dyno #: D329 - AWD
Inertia: 4250
EPA Set Co A: -0.45
EPA Set Co B: 0.2586
EPA Set Co C: 0.01656

Weighted 21.14

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0021-002

Vehicle ID: N001RXX-0080C

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.754	4.212	0.296	1582.3	0.086	0.669	1.143
Phase 2	0.022	2.016	0.001	1676.0	0.004	0.018	
Phase 3	0.050	1.614	0.019	1299.6	0.017	0.034	

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.13	29.13	29.13	
Avg Cell Temp (degF)	75.07	74.29	74.81	
Dew Point (degF)	49.11	49.06	49.15	
Specific Humidity (grains/lbm)	53.21	53.10	53.29	
NOx Corr Factor	0.9071	0.9067	0.9074	
CO2 Dilution Factor	11.618	18.369	14.095	
CFV Vmix (scf @68F)	2765.19	4723.31	2770.17	
 CVS Flow Rate Avg (scfm)	 327.11	 325.93	 328.09	
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.20	869.50	506.60	
Distance (miles)	3.579	3.822	3.569	
Bag Analysis Time (secs)	879.0	1100.3	120.9	

I have validated the data in accordance with the requirements of TP 730

Validated By: _____

Date: _____

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Wed 11/10/2010 6:24:30 PM
Subject: RE: In-use vehicles scheduled for next week

Hi, Sebastian.

This sheet indicates that this vehicle is an auto trans. Actually, it is a manual. Please send the shift schedule you'd like us to use.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 11/04/2010 02:21 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

Attached you will find the parameters for the 2.0 Passat.

Let me know when we should be in Ann Arbor for the inspection on Monday.

If you have any results for the Audi A6 3.1l, it would be great if you can forward them to me.

Thank you very much.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211

Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, November 04, 2010 1:13 PM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0162 (2008 VW/Passat) - VIN# **Ex. 6** 11/08/10
(Monday) 1200 Incoming.

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-

04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)

[attachment "In-Use Parameters Form_N148RXX-0162_ **Ex. 6** pdf" deleted by Lynn
Sohacki/AA/USEPA/US] [attachment "Fuel Drain Instructions.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Wed 11/10/2010 8:23:52 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N148RXX-0162 **Ex. 6** Version2.pdf

Hello Lynn,

Attached you will find the updated version.
Please let me know if the "old" CFIS numbers are working for you.

If not let me know.

Best regards.

Sebastian

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Wednesday, November 10, 2010 1:25 PM
To: Berenz, Sebastian
Subject: RE: In-use vehicles scheduled for next week

Hi, Sebastian.

This sheet indicates that this vehicle is an auto trans. Actually, it is a manual. Please send the shift schedule you'd like us to use.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 11/04/2010 02:21 PM
Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

Attached you will find the parameters for the 2.0 Passat.

Let me know when we should be in Ann Arbor for the inspection on Monday.

If you have any results for the Audi A6 3.1l, it would be great if you can forward them to me.

Thank you very much.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]

Sent: Thursday, November 04, 2010 1:13 PM

To: Berenz, Sebastian

Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N148RXX-0162 (2008 VW/Passat) - VIN# **Ex. 6** 11/08/10
(Monday) 1200 Incoming.

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for
relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include
explicit directions and, if necessary, pictures for:

*disabling traction control, stability control and any load
leveling the vehicle may have*
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to
our contractor, URS, and lab personnel. Paper copies or e-mails sent
directly to URS or lab personnel may result in incorrect information
being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)
[attachment "In-Use Parameters Form_N148RXX-0162_ **Ex. 6** .pdf"
deleted by Lynn Sohacki/AA/USEPA/US] [attachment "Fuel Drain
Instructions.pdf" deleted by Lynn Sohacki/AA/USEPA/US]

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 11/15/2010 8:03:41 PM
Subject: 1st test results of Hybrid
[1st tests 2011 VW hybrid.pdf](#)

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 11/16/2010 3:30:27 PM
Subject: Fw: Confirmatory Test Date assigned for (VW526710023 / 0)

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov
----- Forwarded by Jim Snyder/AA/USEPA/US on 11/16/2010 10:29 AM -----

From: VerifyAdministrator@verify-as1.epa.gov
To: Jim Snyder/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA
Date: 11/16/2010 10:03 AM
Subject: Confirmatory Test Date assigned for (VW526710023 / 0)

PLEASE DO NOT REPLY TO THIS EMAIL!

A Confirmatory Test Date has been set for the following vehicle :

Test Date : 11/19/2010
Manufacturer: VWX
Vehicle ID: VW526710023
Vehicle Configuration: 0

To: Leonard.Kata@vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 11/16/2010 6:04:21 PM
Subject: Pre-cert mtg
[cert preview mtg reqmnts.pdf](#)

Hi Len, I was just talking to Bob Hart and he said VW is planning on releasing some 2012MY vehicles start of January. I thought I'd remind you that prior to any 2012 certification, it is required to have a Pre-cert mtg which includes VW's proposed strategy for meeting the GHG requirements. The GHG plans are to show that you have a viable plan worked out. We realize this is new and plans may change but we want to verify that the manufactures understand it correctly.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

October 6, 2003

Dear Manufacturer:

CCD-03-12 (LDV/LDT/ICI/LIMO)

Subject: Model Year 2005 Compliance Preview Meeting

EPA is conducting its annual review of your certification, in-use compliance and fuel economy plans for the 2005 model year and would like to meet with you to facilitate the early resolution of any concerns and expedite the certification process. At your convenience, please contact your EPA certification representative to schedule a date for this meeting. Discussion topics will include your compliance plans for the upcoming model year and any new product offerings and/or technologies you may be intending to introduce. Enclosure I contains a detailed list of the topics we would like you to discuss.

As in the past, for our laboratory planning purposes, we are also asking you to submit your projections for EPA confirmatory testing for the remainder of 2003 and the entire 2004 calendar years. Enclosure II is a spreadsheet for you to complete and return to your EPA certification representative.

If you are unable to meet in person with us, please submit a written response to the items contained in Enclosures I and II. If you have already had a 2005 preview meeting with EPA, please schedule another brief meeting (or send a written response) to address or update topics that were not covered in the first meeting.

We look forward to meeting with you.

Sincerely,

Merrylin Zaw-Mon, Director
Certification and Compliance Division
Office of Transportation and Air Quality

Enclosures: Enclosure I - Model Year (MY) 2005 Discussion Topics for the Annual Certification Preview Meeting for Light-Duty and Heavy-Duty Vehicles (chassis dynamometer certified)

Enclosure II - EPA Light-duty & Heavy-duty Chassis Dynamometer Manufacturer Test Request Projections

Enclosure I

Model Year (MY) 2005 Discussion Topics for the Annual Certification Preview Meeting for Light-Duty and Heavy-Duty Vehicles (chassis dynamometer certified)

1. Structure of Your Organization

- 1.1 Provide an overview of your organization detailing the functions and staff responsible for fuel economy, certification and in-use programs.

2. Product Line Plans

- 2.1 Detail your product plans for MY 2005 to include information regarding any new technologies, car lines, engines, transmissions, emission controls, fuel economy improvements and/or any other technology that may be introduced.
- 2.2 Will you certify any new sport utility vehicles, mini-vans, or non-conventional trucks (e.g., passenger-oriented pick-ups with a small cargo bed) that have not been previously certified? Detail your reasoning for certifying any of these as light-duty vehicles, light-duty trucks, or heavy-duty trucks within the definitions contained in 40CFR 1803-01.

3. Certification Issues

- 3.1 Describe your MY 2005 light-duty vehicles, light-duty trucks, or heavy-duty trucks (chassis dynamometer) testing and certification plans and identify any critical dates related to them. Identify any early MY 2005 certification plans with dates. Provide your EPA certification representative with your Test Waiver Request plans using the table in Enclosure II within three weeks of your preview meeting, or sooner.
- 3.2 Provide an overview of your certification program for MY 2005. Include a list of Test Groups and Durability Groups. For heavy-duty chassis certified vehicles, provide information about the emission standards to which these vehicles will be certified, including the option, FELs averaging, banking and trading, transferring credits, etc.
- 3.3 Advise the status of your durability/in-use program. Identify any trends. Provide an overview of the in-use test programs conducted in the past year and provide information concerning programs planned for 2005 and 2006 MY vehicles.
- 3.4 Summarize your phase-in plans for Tier 2, Interim Non-Tier 2, Clean fuel Vehicle Heavy-duty (chassis certified) vehicles and California LEV-II vehicles.
- 3.5 Describe any plans to certify alternative fueled vehicles, diesel vehicles, hybrid

and fuel cell vehicles, and new technology (e.g., direct injection) for 2005-2007 model years.

Describe any special testing methods that will be employed.

- 3.6 Describe your phase-in plans for ORVR indicating what MY 2005 Test Groups/Evap Families will incorporate ORVR.
- 3.7 Do you have any OBD issues? Do you have any Test Groups that will not require California OBD approval?
- 3.8 Do you have any NLEV issues? Explain how you will meet the fleet average NMOG emission standards described in 40 CFR 86.1711-99 for 2005 model year vehicles. The MY 2003 annual report is due May 1, 2004. Will you end up with NLEV credits at the end of the year? If not, please explain your plans to purchase credits.
- 3.9 Please provide an overview of the laboratory equipment which will be used to measure emissions from Tier 2 vehicles and zero evaporative vehicles.

4. Fuel Economy Issues

- 4.1 Will you have any driver selectable devices or multi-mode transmissions in your product line that have not previously received EPA approval? Please describe how they operate. Are any vehicles equipped with any driver selectable devices that prevent the engagement of certain gears, prevent lock-up, or prevent overdrive operation? If so, does the driver selectable device reset to the enable position after the ignition is turned off?
- 4.2 Describe the method of operation for any semi-automatic transmissions in your product offering that may be easily operated in either automatic or manual mode. Explain how such vehicles will be tested for fuel economy purposes.
- 4.3 Discuss any fuel economy labeling or CAFÉ issues.

5. In-use Performance and Compliance Program

- 5.1 Provide an overview for any in-use testing programs conducted in the past year for MY 1998-2003 vehicles other than for alternative durability and CAP 2000 testing programs. How many vehicles were tested?
- 5.2 Provide an overview of the process your company uses to submit emission related defect reports to EPA (ref. 40 CFR 85.1901). Describe whom is responsible for submitting these reports to EPA and their time line for doing so. Describe your

process for notifying owners/leasees of recall actions.

- 5.3 Explain the methods used to track emission related component failures as they occur in the field. Describe how you ensure that EPA is notified of a defect within fifteen (15) days after an emission component has twenty-five (25) warranty claims for the same model year vehicle(s) and/or engine(s).
- 5.4 Provide an overview of the process your company uses to correct defects after they have been discovered. Discuss the elements involved in redesign, manufacture, distribute replacements to manufacturing, distributors, dealers, etc. Include the method of communicating the corrections and instructions for implementing them to all involved parties.

6. Other Issues

- 6.1 Discuss any other pertinent information not previously outlined above that may be related to the certification process, in-use compliance and fuel economy.

Enclosure II

EPA Light-duty & Heavy-duty Chassis Dynamometer Mfr. Test Request Projections

MFR: _____ 2004 CALENDAR YEAR

Test Procedure:	FTP	SFTP	2-D Evap	SFTP	FTP
Dyno Type:	Twin Roll	Single Roll	Any	Single Roll	Any
Fuel Type:	Gasoline*	Gasoline*	Any	Any	Non-gasoline**

2003

Oct 1-15					
Oct 16-31					
Nov 1-15					
Nov 16-30					
Dec 1-15					
Dec 16-31					

2004

Jan 1-15					
Jan 16-31					
Feb 1-15					
Feb 16-29					
Mar 1-15					
Mar 16-31					
Apr 1-15					
Apr 16-30					
May 1-15					
May 16-31					
Jun 1-15					
Jun 16-30					
July 1-15					
July 16-31					
Aug 1-15					
Aug 16-31					
Sept 1-15					
Sept 16-30					
Oct 1-15					
Oct 16-31					
Nov 1-15					
Nov 16-30					
Dec 1-15					
Dec 16-31					

*Gasoline includes Indolene and Phase II test fuel
 **Please indicate the type of fuel which will be used.

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 11/16/2010 6:30:57 PM
Subject: RE: Pre-cert mtg

Hello Jim:

Thanks for the reminder. We are putting the finishing touches on our pre-certification letter and preparing the 2012 pre-model GHG report. I will be contacting you within the next few days to schedule a meeting.

Regards,

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, November 16, 2010 1:04 PM
To: Ex. 7
Subject: Pre-cert mtg

Hi Ex. 7 was just talking to Ex. 7 and he said VW is planning on releasing some 2012MY vehicles start of January. I thought I'd remind you that prior to any 2012 certification, it is required to have a Pre-cert mtg which includes VW's proposed strategy for meeting the GHG requirements. The GHG plans are to show that you have a viable plan worked out. We realize this is new and plans may change but we want to verify that the manufactures understand it correctly.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 11/16/2010 8:35:48 PM
Subject: In-use vehicles scheduled for next week
In-Use Parameters Form.xls

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N149RXX-0059 (2008 VW/Passat) - VIN# **Ex. 6** 0930 vehicle incoming on 11/22/10
(Monday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions
- for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 11/16/2010 8:37:36 PM
Subject: Reminder: In-use vehicles scheduled for next week
[In-Use Parameters Form.xls](#)

Hi, Sebastian.

Have you had a chance to prepare this information? We'll need it soon.

Thanks.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

----- Forwarded by Lynn Sohacki/AA/USEPA/US on 11/16/2010 03:36 PM -----

From: Lynn Sohacki/AA/USEPA/US
To: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
Date: 11/09/2010 08:42 AM
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N002RXX-0133C (2008 Audi/A6) - VIN#	Ex. 6	000 Veh. Pick up on 11/16/10 (Tuesday)
N001RXX-0136C (2008 Audi/A6) - VIN#	Ex. 6	0900 Veh. Pick up on 11/17/10 (Wednesday)

Please send the following to me for these vehicles before pick-up. Please use the attached form:

- vehicle target road-load coefficients
- fuel tank capacity
- 40% tank capacity
- tire pressure
- applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

- *disabling traction control, stability control and any load leveling the vehicle may have*
- preferred method for loading the canister
- preferred fuel drain method
- any special starting procedures
- ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Tue 11/16/2010 11:03:53 PM
Subject: FW: In-use vehicles scheduled for next week
[N002RXX-0133C In-Use Parameters Form.pdf](#)
[N001RXX-0136C In-Use Parameters Form.pdf](#)
[requested test procedure confirmatory program V4.pdf](#)

Hello Lynn,

I was all day in Ann Arbor inspecting the first Audi A6 with Marc and Vince.
Tomorrow morning we will be finishing this car and start with the second one.

Attached I send you the data for both cars.

Best regards

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Berenz, Sebastian
Sent: Tuesday, November 09, 2010 10:53 AM
To: 'Sohacki.Lynn@epamail.epa.gov'
Subject: RE: In-use vehicles scheduled for next week

Hello Lynn,

attached you will find the test parameters for two Audis for next week.
I also attached the procedure which we used for the last Audis.

It would be great if you can send me the test results of N001RXX-0080C when they are available.

Please let me know if you have any questions.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, November 09, 2010 8:42 AM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N002RXX-0133C (2008 Audi/A6) - VIN# **Ex. 6** 1000 Veh. Pick up on 11/16/10 (Tuesday)

N001RXX-0136C (2008 Audi/A6) - **Ex. 6** 0900 Veh. Pick up on 11/17/10 (Wednesday)

Please send the following to me for these vehicles before pick-up.
Please use the attached form:

vehicle target road-load coefficients
fuel tank capacity
40% tank capacity
tire pressure
applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have
preferred method for loading the canister
preferred fuel drain method
any special starting procedures
ABS disabling instructions
for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative:

Date:

EG&G Representative:

Date:

EPA Representative:

Date:



National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

Vehicle Parameters for In-use Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Drive Axle: Front, Rear or All wheel drive

Tire Pressure: PSI

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Vehicle Set Road-Load Coefficients

A Lb-force

B Lb-force*mph

C Lb-force*mph²

Does this vehicle qualify for relaxed in-use standards as set forth in 40 CFR 86.1811-04(p)? (Y/N)

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

- * Letter, e-mail, fax or other document delivered from the manufacturer
(attach any additional information from the manufacturer to this form)
- * Verbal instruction from the manufacturer's representative
- * Other (specify)

Manufacturer Representative: **Date:**

EG&G Representative: **Date:**

EPA Representative: **Date:**

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Rhodes, Brian" [Brian.Rhodes@vw.com]
From: "Berenz, Sebastian"
Sent: Fri 11/19/2010 2:44:23 PM
Subject: RE: In-use vehicles scheduled for next week
In-Use Parameters Form N149RXX-0059 \ Ex. 6 pdf

Hello Lynn,

Sorry for being that late. But attached you will find the parameter sheet for the VW Passat that comes in on Monday next week.

I will not be in the office, but able to read mails or answer my cell phone.

Mr. Brian Rhodes from our group will be in Ann Arbor on Monday to inspect the car. The guys from URS already know about that.

If you have any questions, please let me know.

Best regards

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Tuesday, November 16, 2010 3:36 PM
To: Berenz, Sebastian
Subject: In-use vehicles scheduled for next week

Hi, Sebastian.

Listed below is the information for the vehicles that we have scheduled for next week.

N149RXX-0059 (2008 VW/Passat) - VIN# **Ex. 6** 30 vehicle incoming on 11/22/10 (Monday)

Please send the following to me for these vehicles before pick-up.

Please use the attached form:

vehicle target road-load coefficients

fuel tank capacity

40% tank capacity

tire pressure

applicable in-use standards (Does this vehicle qualify for relaxed in-use standards as per 86.1811-04(p)?)

To avoid unnecessary delays and correspondence, please also include explicit directions and, if necessary, pictures for:

disabling traction control, stability control and any load leveling the vehicle may have

preferred method for loading the canister

preferred fuel drain method

any special starting procedures

ABS disabling instructions

for flex-fuel vehicles, the fuel switch procedure

Please send the form electronically to me and I will pass it along to our contractor, URS, and lab personnel. Paper copies or e-mails sent directly to URS or lab personnel may result in incorrect information being distributed.

If you have any questions, please feel free to contact me. Thank you.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

(See attached file: In-Use Parameters Form.xls)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Johnson, Stuart" [Stuart.Johnson@vw.com]
From: "Hennard, Mike"
Sent: Fri 11/19/2010 9:05:14 PM
Subject: Response to EPA Questions - 2007 Audi Q7 (Survelance Test Program)
4 2 Engine Family Response to EPA.pdf
mike.hennard@vw.com

Lynn:

Our colleagues at the Audi factory have finalized a reply to your questions that resulted from our July 2010 meeting at the EPA Ann Arbor office. I have attached a PDF file with Audi's written response. Please let me know if you have any comments or questions.

Thanks for your patience.

Michael Hennard

Manager - Emissions Compliance EEO

Volkswagen Group of America

3800 Hamlin Road

Auburn Hills, MI 48326

Telephone Number: 248 754 4202

Fax: 248 754 4207

mike.hennard@vw.com

Engine Family 7ADXT04.2358

VWGoA Response to EPA Questions

Following IUVP testing and EPA surveillance testing of the subject engine family, EPA has asked several questions related to the operation of the fuel system and OBD system of this vehicle.

Ex. 4 - CBI

Ex. 4 - CBI

OBD system:

Ex. 4 - CBI

Response to OBD questions:

Ex. 4 - CBI

Ex. 4 - CBI

Ex. 4 - CBI

EVAP Result on VIN:

Ex. 6

Ex. 4 - CBI

Failed test data

EVAPORATIVE EMISSIONS

Started (D@T)	10/29/2009 @ 11:05	Finished (D@T)	10/31/2009 @ 11:05
Start Temp (°F)	72.00	Test Length (hrs)	48
Day 1 Total (gHC)	0.457028	Diurnal (gHC)	1.692560
Day 2 Total (gHC)	1.69256	Hot Soak_HC_(g)	0.066508
Day 3 Total (gHC)	0	Total Emissions (gHC)	1.759068

During the passed FTP the purge behavior is as designed and the Evap results are comparable with the results during certification (see below) and well below the standards

Passed test data

EVAPORATIVE EMISSIONS

Started (D@T)	11/25/2009 @ 06:29	Finished (D@T)	11/27/2009 @ 06:29
Start Temp (°F)	72.00	Test Length (hrs)	48
Day 1 Total (gHC)	0.379701	Diurnal (gHC)	0.519697
Day 2 Total (gHC)	0.519697	Hot Soak_HC_(g)	0.034037
Day 3 Total (gHC)	0	Total Emissions (gHC)	0.553734

Cert test data

EVAP Emissions					
Running Loss	[g/mile]			-	0,000
Hot Soak	[g/test]			0,056	0,127
1st day	[g/test]			0,344	0,347
2nd day	[g/test]			0,261	0,262
3rd day	[g/test]			-	0,229
Hot Soak + 24 h diu. highest	[g/test]			0,400	0,474

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: David Good/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; inc Wehrly/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Fri 11/19/2010 9:47:21 PM
Subject: 2012 Volkswagen Pre-Certification Document and Meeting Request

Hello Jim:

Thus far, we have completed preparation of the 2012 Volkswagen pre-certification letter, in accordance with the existing "Dear Manufacturer" guidance letter on this topic (CCD-03-12). Our letter will be filed with the VERIFY system today.

In the letter we state that we will follow with our 2012 Pre-Model Year GHG Report. We are finishing this right now and intend to submit the report to the VERIFY system in the very near future.

We also state that we would like to schedule a meeting. At the meeting we would walk through the pre-certification letter and attachments and present to 2012 pre-model year GHG report. As mentioned the documents will be available for your prior review.

With the Thanksgiving Holiday next week, staff schedules are somewhat mixed, as might also be the case at EPA. Therefore, I would like to propose a meeting with EPA on Wednesday, December 1, 2010.

Please let me know if this date is acceptable.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; N=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[];
N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 11/23/2010 9:57:59 PM
Subject: Re: 2012 Volkswagen Pre-Certification Document and Meeting Request

Thanks Len, December 1 is okay with me. I will check the schedule with the other guys and schedule a meeting time.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: David Good/AA/USEPA/US@EPA, Linc Wehrly/AA/USEPA/US@EPA, "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 11/19/2010 04:50 PM
Subject: 2012 Volkswagen Pre-Certification Document and Meeting Request

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Len

Leonard W. Kata

Manager, Emission Regulations and Certification
Engineering and Environmental Office
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Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; N=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 11/23/2010 9:58:02 PM
Subject: Re: 2012 Volkswagen Pre-Certification Document and Meeting Request

Thanks Len, December 1 is okay with me. I will check the schedule with the other guys and schedule a meeting time.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: David Good/AA/USEPA/US@EPA, Linc Wehrly/AA/USEPA/US@EPA, "Kohnen, Christoph (VWGoA)" <christoph.kohnen@vw.com>
Date: 11/19/2010 04:50 PM
Subject: 2012 Volkswagen Pre-Certification Document and Meeting Request

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Len

Leonard W. Kata
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Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: Vincent Mazaitis/AA/USEPA/US@EPA;Jim Snyder/AA/USEPA/US@EPA[]; im Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 11/29/2010 12:39:07 PM
Subject: Hybrid Prep/Test Procedure Requirements for the VW Touareg Hybrid

Hello Jim and Vince,

Please remind the lab prep/test drivers that the Start-Stop has to be enabled during the preconditioning AND the emissions test. We understand that this was overlooked for the preconditioning of the previous test attempt (according to the driver).

Un-enabled start-stop capability during preconditioning may influence the state of charge at the end of the preconditioning and the start of the UDDS test. This may result in an unexpected influence on the fuel economy or charge balance of the system.

The instructions are posted on the vehicle.

To enable the Start-Stop:

- 1) The hood lock must be engaged before the car is driven with the hood open on the dyno. The provided "dummy" must be engaged into the hood latch prior to starting the vehicle.
- 2) The doors must be shut
- 3) The drivers seat belt lock must be engaged (either by the provided dummy or the actual seat-belt.)

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com


To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Mon 11/29/2010 4:47:15 PM
Subject: Test data for in-use vehicle
[N148RXXX-0162.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

CUSD

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results							
Test Number: 2011-0035-002			Vehicle ID: N148RXX-0162				
	Test Date: 11/24/2010		MFR Name: AUDI				
	Key Start / Hot Soak: 09:04:45 / 09:39		MFR Codes: 640 ADX				
	Fuel Container ID: F00023		Config #: 00				
	Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: MANUAL				
	Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)		Shift Schedule: A06400005				
	Calculation Method: Gasoline		Beginning Odometer: 037488.0 Mi				
Pretest Remarks:			Drive Schedule: ftp3bag				
			Soak Period: 20.7 hours				
Baq Data							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NonMeth HC</u>	
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)	
Sample	17.814	78.070	2.122	0.866	3.839		
Ambient	3.501	0.000	0.028	0.047	2.069		
Net Concentration	14.542	78.070	2.096	0.822	1.904	12.365	
Remarks:							
Phase 2							
Sample	3.247	9.228	0.451	0.614	2.041		
Ambient	3.238	0.000	0.023	0.047	2.045		
Net Concentration	0.157	9.228	0.429	0.569	0.090	0.054	
Remarks:							
Phase 3							
Sample	3.639	10.295	0.420	0.779	2.326		
Ambient	3.398	0.000	0.021	0.048	2.030		
Net Concentration	0.440	10.295	0.400	0.734	0.414	-0.034	
Remarks:							
Phase 4							
Sample							
Ambient							
Net Concentration							
Remarks: This test has particulate results.							
Results							
	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Vol MPG</u>
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.188	2.043	0.081	338.1	0.029	0.160	26.007
Phase 2	0.003	0.382	0.026	370.3	0.002	0.001	23.970
Phase 3	0.006	0.268	0.015	300.5	0.006	0.000	29.548
Weighted	0.04231	0.69512	0.03477	344.416	0.00872	0.03381	
Fuel Economy							
	<u>Gasoline MPG</u>	<u>Dyno Settings</u>					
Phase 1	25.98	Dyno #: D329 - FWD					
Phase 2	23.95	Inertia: 3625					
Phase 3	29.52	EPA Set Co A: 16.37					
		EPA Set Co B: -0.1217					
		EPA Set Co C: 0.01898					
Weighted	25.73	Emiss-Bench: Mexa 7200sle					
v101007 - d329 EPAVDAEm101124075400 Page 1 of 5 Print Time 24-Nov-2010 13:34							

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0035-002

Vehicle ID: N148RXX-0162

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.678	7.344	0.293	1215.6	0.103	0.576	1.143
Phase 2	0.012	1.475	0.102	1429.2	0.008	0.004	
Phase 3	0.020	0.965	0.056	1081.3	0.022	0.000	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.38	29.38	29.39	
Avg Cell Temp (degF)	75.36	75.38	74.81	
Dew Point (degF)	49.01	48.82	49.03	
Specific Humidity (grains/lbm)	52.56	52.18	52.56	
NOx Corr Factor	0.9046	0.9031	0.9046	
CO2 Dilution Factor	15.298	21.771	17.163	
CFV Vmix (scf @68F)	2801.32	4758.27	2790.87	
Total Vmix (scf@68F)	2853.32	4846.75	2842.71	
CVS Flow Rate Avg (scfm)	329.76	328.16	330.61	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	509.70	870.00	506.50	
Distance (miles)	3.596	3.859	3.599	
Bag Analysis Time (secs)	879.5	1100.8	121.0	

NVFEL Laboratory Test Data

PARTICULATE

Final Laboratory Test Results

Test Number: 2011-0035-002

Vehicle ID: N148RXX-0162

Test Information



Test Date: 11/24/2010

Key Start: 09:04:45 / 09:39

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: MANUAL

Shift Schedule: A06400005

Beginning Odometer: 037488.0 MI

Drive Schedule: ftp3bag

Soak Period: 20.7 hours

All filter weights are corrected for buoyancy.

Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	47600	139.4600	139.5461	0.08613	18.855	5.244	
	B	47610	146.2990	146.3793	0.08031	17.700	4.923	
	D	47611	145.75887	145.83807	0.07920	17.445	4.852	
Remarks:								
Phase 2	A	47612	143.1921	143.2186	0.02651	5.802	1.503	
	B	47613	142.4165	142.4414	0.02490	5.457	1.414	
	D	47614	144.45863	144.48155	0.02292	5.041	1.306	
Remarks:								
Phase 3	A	47615	141.9768	142.0126	0.03581	7.861	2.185	
	B	47616	141.9050	0.0000	0.00000	0.000	0.000	
	D	47617	143.08760	143.11732	0.02971	6.540	1.817	
Remarks:								
								Exclude C
Phase 4								
Remarks: This test has particulate results.								

Average Results

	Net Wt mg	Total Mass mg	Total Mass mg / mi
Phase 1	0.08188	18.278	5.083
Phase 2	0.02478	5.629	1.459
Phase 3	0.02184	7.861	2.185

All filter weights are corrected for buoyancy.

Weighted All Filters:

2.41000

Reference Filter Stability Check

2% of Avg Net or 0.01 mg	No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check	Dyno #: D329 - FWD
0.01	1	144.97079	144.97420	0.00341	PASS/FAIL	Inertia: 3625
	2	142.32806	142.32773	-0.00033	PASS	EPA Set Co A: 16.37
					PASS	EPA Set Co B: -0.1217
						EPA Set Co C: 0.01898

Emissions Bench Mexa 7200sle



NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Number: 2011-0035-002

Vehicle ID: N148RXX-0162

WEIGHING CHAMBER

<u>WEIGHING CHAMBER</u>		<u>Buoyancy</u>	<u>Operator</u>	<u>Chamber Temp</u>	<u>Dew Point</u>	<u>Barometer</u>	<u>Last Change in Status</u>
	Timestamp	Factor	(id)	(°F)	(°F)	(°Hg)	Status @ timestamp
<u>Pre-test</u>	11/23/10 9:54	1.0011118	022298	71.3	48.4	29.00	NORM @ 11/23/10 04:29:28
<u>Post-test</u>	11/24/10 12:38	1.0011235	022298	71.4	48.7	29.31	NORM @ 11/23/10 04:29:28

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.38	29.38	29.39	
Avg Cell Temp (degF)	75.36	75.38	74.81	
Dew Point (degF)	49.01	48.82	49.03	
Specific Humidity (grains/lbm)	52.56	52.18	52.56	
NOx Corr Factor	0.9046	0.9031	0.9046	
Dilution Factor	15.30	21.77	17.16	
CFV Vmix (scf @68F)	2801.32	4758.27	2790.87	
Sample Volume A (scf @68F)	13.035	22.148	12.948	
Sample Volume B (scf @68F)	12.946	22.117	12.978	
Sample Volume C (scf @68F)	13.068	22.172	13.001	
Sample Volume D (scf @68F)	12.955	22.040	12.916	
Sample Volume Average (scf @68F)	13.001	22.119	12.961	
Total Vmix (scf @68F)	2853.32	4846.75	2842.71	
Phase Time (sec)	509.70	870.00	506.50	
Distance (miles)	3.596	3.859	3.599	
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)				
PSU Dil Air B (degC)				
PSU Dil Air C (degC)				
PSU Filter A (degC)	43.4	43.0	42.3	
PSU Filter B (degC)	40.3	39.9	39.2	
PSU Filter C (degC)	37.3	37.2	36.5	
PSU Dil Flow A (lpm)				
PSU Dil Flow B (lpm)				
PSU Dil Flow C (lpm)				
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

C130

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0035-003

Vehicle ID: N148RXX-0162

Test Information

Test Date: 11/24/2010

Key Start: 10:22:10

MFR Name: AUDI

MFR Codes: 640 ADX

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Config #: 00

Transmission: MANUAL

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Shift Schedule: A06400006

Calculation Method: Gasoline

Beginning Odometer: 037488.0 MI

Pretest Remarks:

Drive Schedule: hwfet_hwfet



Bag Data

	HC-FID	CO	NOx	CO2	CH4	NonMeth HC
Phase 1	(ppmC)	(ppm)	(ppm)	(%)	(ppm)	(ppmC)
Sample	3.676	9.416	0.170	1.027	2.073	
Ambient	3.634	0.000	0.022	0.049	2.057	
Net Concentration	0.320	9.416	0.150	0.981	0.175	0.121

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks: This test has particulate results.

Results

	HC-FID	CO	NOx	CO2	CH4	NMHC	Vol MPG
	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(gpm)	(mpg)
Phase 1	0.002	0.129	0.003	210.7	0.001	0.001	42.149

Fuel Economy

Gasoline MPG
Phase 1 42.11

Dyno Settings

Dyno #: D329 - FWD
Inertia: 3625
EPA Set Co A: 16.37
EPA Set Co B: -0.1217
EPA Set Co C: 0.01898

Emiss-Bench: Mexa 7200sl

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0035-003

Vehicle ID: N148RXX-0162

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.022	1.320	0.031	2160.9	0.014	0.008	1.143

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.39			
Avg Cell Temp (degF)	74.76			
Dew Point (degF)	49.02			
Specific Humidity (grains/lbm)	52.55			
NOx Corr Factor	0.9046			
CO2 Dilution Factor	13.037			
CFV Vmix (scf @68F)	4173.11			
Total Vmix (scf@68F)	4251.46			
CVS Flow Rate Avg (scfm)	327.26			
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	765.10			
Distance (miles)	10.254			
Bag Analysis Time (secs)	105.2			

NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Information



Test Number: 2011-0035-003
Test Date: 11/24/2010
Key Start: 10:22:10
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

Vehicle ID: N148RXX-0162
MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: MANUAL
Shift Schedule: A06400006
Beginning Odometer: 037488.0 MI
Drive Schedule: hwfet_hwfet

Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / mi	Filter comment
Phase 1	A	47618	143.1964	143.2414	0.04496	9.736	0.949	
	B	47619	141.3449	141.3901	0.04524	9.836	0.959	
	D	47620	142.35569	142.40124	0.04555	9.924	0.968	

Remarks:

Phase 2

Remarks:

Phase 3

Remarks:

Phase 4

Remarks: This test has particulate results.

Average Results

Phase 1	Net Wt mg	Total Mass mg	Total Mass mg / mi
	0.04525	9.786	0.954

All filter weights are corrected for buoyancy.

Reference Filter Stability Check

2% of Avg Net or 0.01 mg	No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check	Dyno #: D329 - FWD
0.01	1	144.97079	144.97653	0.00574	PASS/FAIL	Inertia: 3625
	2	142.32806	142.32906	0.00100	PASS	EPA Set Co A: 16.37
					PASS	EPA Set Co B: -0.1217
						EPA Set Co C: 0.01898

v101007 - d329 EPAVDAEm101124095516

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Emissions Bench Mexa 7200sle

Print Time 24-Nov-2010 13:36



NVFEL Laboratory Test Data
Final Laboratory Test Results

PARTICULATE

Test Number: 2011-0035-003

Vehicle ID: N148RXX-0162

WEIGHING CHAMBER

	Timestamp	Buoyancy Factor	Operator (id)	Chamber Temp (°F)	Dew Point (°F)	Barometer (°Hg)	Last Change in Status Status @ timestamp
Pre-test	11/23/10 9:54	1.0011118	022298	71.3	48.4	29.00	NORM @ 11/23/10 04:29:28
Post-test	11/24/10 13:15	1.0011237	022298	71.3	49	29.31	NORM @ 11/23/10 04:29:28

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.39			
Avg Cell Temp (degF)	74.76			
Dew Point (degF)	49.02			
Specific Humidity (grains/lbm)	52.55			
NOx Corr Factor	0.9046			
Dilution Factor	13.04			
CFV Vmix (scf @68F)	4173.11			
Sample Volume A (scf @68F)	19.634			
Sample Volume B (scf @68F)	19.554			
Sample Volume C (scf @68F)	19.644			
Sample Volume D (scf @68F)	19.514			
Sample Volume Average (scf @68F)	19.587			
Total Vmix (scf @68F)	4251.46			
Phase Time (sec)	765.10			
Distance (miles)	10.254			
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)				
PSU Dil Air B (degC)				
PSU Dil Air C (degC)				
PSU Filter A (degC)	43.5			
PSU Filter B (degC)	40.5			
PSU Filter C (degC)	37.8			
PSU Dil Flow A (lpm)				
PSU Dil Flow B (lpm)				
PSU Dil Flow C (lpm)				
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Cc: CN=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Roberts French/OU=AA/O=USEPA/C=US@EPA[]; N=Roberts French/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA
Sent: Mon 11/29/2010 6:02:22 PM
Subject: VW Pre-Cert mtg and 2012 pre-model year GHG report

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; eonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: CN=David Good/OU=AA/O=USEPA/C=US@EPA;CN=Roberts French/OU=AA/O=USEPA/C=US@EPA[]; N=Roberts French/OU=AA/O=USEPA/C=US@EPA[]

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Mon 11/29/2010 6:02:22 PM

Subject: VW Pre-Cert mtg and 2012 pre-model year GHG report

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Tue 11/30/2010 5:54:15 PM
Subject: Accepted: VW Pre-Cert mtg and 2012 pre-model year GHG report

To: Jim Snyder/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; inc Wehrly/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; om Anderson/AA/USEPA/US@EPA[]
Cc: David Good/AA/USEPA/US@EPA;Roberts French/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; oberts French/AA/USEPA/US@EPA;"Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]; Kohnen, Christoph (VWGoA)" [christoph.kohnen@vw.com]
From: "Kata, Leonard"
Sent: Wed 12/1/2010 1:49:44 PM
Subject: RE: Invitation: VW Pre-Cert mtg and 2012 pre-model year GHG report (Dec 1 01:00 PM EST in AA-C126/AA-OTAQ-OFFICE@EPA)
[2012 Cert Preview General.pdf](#)

Hello All:

I am looking forward to our meeting this afternoon. I have attached a copy of a slide presentation version of the general portion of our certification preview letter submitted via VERIFY. I will also bring copies of these slides for distribution.

We will also be bringing a letter and presentation materials for the GHG 2012 Pre-Model Year Report and two presentations concerning strategies for Air Conditioning Credits.

As I have mentioned, my manager, Dr. Christoph Kohnen will be joining the meeting.

Best regards,

Len

<<2012 Cert Preview General.pdf>>

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Monday, November 29, 2010 1:02 PM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; Kata, Leonard; Wehrly.Linc@epamail.epa.gov; Healy.Stephen@epamail.epa.gov; Anderson.Tom@epamail.epa.gov

Cc: Good.David@epamail.epa.gov; French.Roberts@epamail.epa.gov

Subject: Invitation: VW Pre-Cert mtg and 2012 pre-model year GHG report (Dec 1 01:00 PM EST in AA-C126/AA-OTAQ-OFFICE@EPA)

When: Wednesday, December 01, 2010 1:00 PM-3:00 PM (GMT-05:00) Eastern Time (US & Canada).

Where: C126 (lobby)

Invitation: VW Pre-Cert mtg and 2012 pre-model year GHG report

12/01/2010 -

Chair:

Jim Snyder/AA/USEPA/US

Sent By:

Snyder.Jim@epamail.epa.gov

Location:

C126 (lobby)

Rooms:

AA-C126/AA-OTAQ-OFFICE@EPA

AA-C127/AA-OTAQ-OFFICE@EPA

Snyder.Jim@epamail.epa.gov

Jim Snyder has invited you to a meeting. You have not yet responded.

Required:

Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Leonard.Kata@vw.com, Linc

Wehrly/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA

Optional:

David Good/AA/USEPA/US@EPA, Roberts French/AA/USEPA/US@EPA

Description

<< File: ATT372448.htm >> << File: c130220.ics >> << File: ecblank.gif >> << File: pic07536.gif >>

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 12/1/2010 3:00:18 PM
Subject: RE: Invitation: VW Pre-Cert mtg and 2012 pre-model year GHG report (Dec 1 01:00 PM EST in AA-C126/AA-OTAQ-OFFICE@EPA)

Hi Len, got your voice mail and handout. Everything is fine at our end, looking forward to the meeting.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA[]
From: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US
Sent: Fri 12/3/2010 11:47:58 AM
Subject: VW526710023 11-30-10
[VW526710023 11-30-10.pdf](#)

Good morning Bob,

Please find enclosed the Laboratory Test Data for the Subject vehicle. If you have any questions or concerns, please contact Jim Snyder or me.

Thanks for your patience Bob,

Vince Mazaitis

CERT

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0330-008

Vehicle ID: VW526710023

Test Information

Test Date: 11/30/2010

MFR Name: VOLKSWAGEN

Key Start / Hot Soak: 13:48:11 / 09:39

MFR Codes: 590 VWX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 21.04 Fed Fuel 2-day Exhaust (CAN LOAD)

Shift Schedule: A09980005

Calculation Method: Gasoline

Beginning Odometer: 004303.0 MI

Pretest Remarks:

Drive Schedule: ftp4bag

Soak Period: 24.0 hours

Bag Data

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Phase 1						
Sample	10.182	30.307	2.367	1.240	2.510	
Ambient	2.703	0.955	0.014	0.044	1.931	
Net Concentration	7.730	29.440	2.355	1.200	0.759	6.911

Remarks:

Phase 2

Sample	3.350	0.690	0.191	0.573	1.849	
Ambient	2.542	0.000	0.008	0.043	1.918	
Net Concentration	0.917	0.690	0.183	0.531	0.014	0.902

Remarks:

Phase 3

Sample	3.306	6.238	0.497	0.865	1.924	
Ambient	2.451	0.000	0.010	0.043	1.912	
Net Concentration	1.013	6.238	0.488	0.825	0.136	0.866

Remarks:

Phase 4

Sample	2.867	0.605	0.334	0.488	1.871	
Ambient	2.733	0.000	0.010	0.043	1.920	
Net Concentration	0.234	0.605	0.325	0.447	0.021	0.211

Remarks: This test has particulate results.

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC / NMOG (gpm)	Vol MPG (mpg)
Phase 1	0.098	0.757	0.091	485.1	0.011	0.088 / 0.092	18.272
Phase 2	0.019	0.028	0.011	343.4	0.000	0.018 / 0.019	25.880
Phase 3	0.013	0.161	0.019	334.8	0.002	0.011 / 0.012	26.535
Phase 4	0.005	0.025	0.020	288.5	0.000	0.004 / 0.004	30.809
Weighted	0.02957	0.21518	0.03237	354.278	0.00309	(NMOG=1.04xNMHC) 0.0267 / 0.0278	


Fuel Economy

	Gasoline MPG				Dyno Settings	Dyno #:
Phase 1	18.25					D329 - AWD
Phase 2	25.85					Inertia: 5500
Phase 3	26.51					EPA Set Co A: -5.22
Phase 4	30.78	1% SOC Limit	Act SOC A-hr	Sys Nom Volts	Charge State	EPA Set Co B: -0.1555
		0.6890	-0.4973	288.0	Pass	EPA Set Co C: 0.02786
Weighted	25.06					Emiss-Bench: Mexa 7200die

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Page 1 of 2

Print Time 02-Dec-2010 12:23

NVFEL Laboratory Test Data						PARTICULATE		
Final Laboratory Test Results- Refer to VERIFY Reports for Official Data								
Test Information				Vehicle ID: VW526710023				
	Test Date: 11/30/2010		MFR Name: VOLKSWAGEN					
	Key Start: 13:48:11 / 09:39		MFR Codes: 590		VWX			
	Fuel Container ID: F00023		Config #: 00					
	Fuel Type: 61 Tier 2 Cert Test Fuel		Transmission: AUTO					
	Test Procedure: 21.04 Fed Fuel 2-day Exhaust (CAN LOAD)		Shift Schedule: A09980005					
	Calculation Method: Gasoline		Beginning Odometer: 004303.0 MI					
Pretest Remarks:				Drive Schedule: flp4bag		Soak Period: 24.0 hours		
All filter weights are corrected for buoyancy.								
Particulate	Filter Sampler	Filter No.	Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Total Mass mg	Total Mass mg / ml	Filter comment
Phase 1	A	7067560	140.9967	141.0337	0.03697	23.162	6.461	
	B	7067561	140.3475	140.3871	0.03957	24.804	6.919	
	C	7067562	142.2697	142.3113	0.04158	26.163	7.298	
Remarks:								
Phase 2	A	7067563	141.6238	141.6521	0.02826	17.656	4.597	
	B	7067564	141.7567	141.7878	0.03117	19.467	5.069	
	C	7067565	145.6394	145.6702	0.03078	19.242	5.010	
Remarks:								
Phase 3	A	7067566	142.8943	142.9275	0.03317	20.766	5.788	
	B	7067567	147.2771	147.3015	0.02437	15.294	4.263	
	C	7067568	149.0163	149.0414	0.02508	15.683	4.371	
Remarks:								
Phase 4	A	7067569	149.6534	149.6858	0.03239	20.214	5.260	
	B	7067570	146.9659	146.9992	0.03328	20.814	5.416	
	C	7067571	142.9747	142.9995	0.02476	15.600	4.060	
Remarks: <u>This test has particulate results.</u>								
Average Results					Net Wt mg	Total Mass mg	Total Mass mg / ml	
Phase 1					0.03937	24.710	6.893	
Phase 2					0.03007	18.789	4.892	
Phase 3					0.02754	17.248	4.807	
Phase 4					0.03014	18.876	4.912	
All filter weights are corrected for buoyancy.								
Weighted All Filters:							5.28987	
Reference Filter Stability Check				Tare (Pre Wt)	Gross (Post Wt)	Net Wt mg	Stability Check	Dyno #: D329 - AWD
2% of Avg Net or 0.01 mg		No.					PASS/FAIL	Inertia: 5500
0.01		1	145.74284	145.74809	0.00525		PASS	EPA Set Co A: -5.22
		2	146.49367	146.49852	0.00485		PASS	EPA Set Co B: -0.1555
								EPA Set Co C: 0.02786
Emissions Bench Mexa 7200dle								
v101007 - d329 EPAVDAEm101130125340			Page 1 of 2			Print Time 02-Dec-2010 12:23		

**NVFEL Laboratory Test Data****PARTICULATE**

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0330-008

Vehicle ID: VW526710023

WEIGHING CHAMBER

	Timestamp	Buoyancy Factor	Operator (id)	Chamber Temp (°F)	Dew Point (°F)	Barometer (°Hg)	Last Change in Status
Pre-test	11/30/10 10:20	1.0011021	021798	71.2	48.4	28.74	Status @ timestamp
Post-test	12/1/10 10:43	1.0011044	022298	71.5	49.2	28.82	NORM @ 11/30/10 08:32:31 NORM @ 11/30/10 20:30:17

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.68	28.68	28.69	28.69
Avg Cell Temp (degF)	74.47	75.02	75.13	74.66
Dew Point (degF)	49.06	49.10	49.17	49.14
Specific Humidity (grains/lbm)	53.94	54.02	54.16	54.07
NOx Corr Factor	0.9099	0.9102	0.9108	0.9104
Dilution Factor	10.77	23.37	15.47	27.43
CFV Vmix (scf @68F)	2783.34	4769.22	2797.15	4768.51
Sample Volume A (scf @68F)	4.464	7.671	4.490	7.677
Sample Volume B (scf @68F)	4.462	7.672	4.479	7.662
Sample Volume C (scf @68F)	4.445	7.665	4.494	7.606
Sample Volume D (scf @68F)				
Sample Volume Average (scf @68F)	4.457	7.669	4.488	7.648
Total Vmix (scf @68F)	2796.71	4792.23	2810.61	4791.455301
Phase Time (sec)	506.90	869.60	509.70	869.59
Distance (miles)	3.585	3.841	3.588	3.843
PSU Probe A (degC)				
PSU Probe B (degC)				
PSU Probe C (degC)				
PSU Dil Air A (degC)	41.4	41.1	41.3	41.3
PSU Dil Air B (degC)	43.7	43.3	43.3	43.3
PSU Dil Air C (degC)	40.2	40.0	40.1	40.1
PSU Filter A (degC)	45.5	47.5	45.6	45.5
PSU Filter B (degC)	47.0	46.1	45.6	47.4
PSU Filter C (degC)	44.2	44.0	44.3	44.9
PSU Dil Flow A (lpm)	29.9	30.0	29.9	30.0
PSU Dil Flow B (lpm)	29.9	30.0	29.9	30.0
PSU Dil Flow C (lpm)	30.0	30.0	29.9	30.0
PSU A Proportionality				
PSU B Proportionality				
PSU C Proportionality				

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results- Refer to VERIFY Reports for Official Data

Test Number: 2010-0330-008

Vehicle ID: VW526710023

Results	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	0.353	2.715	0.325	1739.0	0.040	0.316	1.079
Phase 2	0.072	0.109	0.043	1319.1	0.001	0.071	
Phase 3	0.046	0.578	0.068	1201.1	0.007	0.040	
Phase 4	0.018	0.096	0.077	1108.7	0.002	0.017	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	28.68	28.68	28.69	28.69
Avg Cell Temp (degF)	74.47	75.02	75.13	74.66
Dew Point (degF)	49.06	49.10	49.17	49.14
Specific Humidity (grains/lbm)	53.94	54.02	54.16	54.07
NOx Corr Factor	0.9099	0.9102	0.9108	0.9104
CO2 Dilution Factor	10.770	23.374	15.471	27.43
CFV Vmix (scf @68F)	2783.34	4769.22	2797.15	4768.51
Total Vmix (scf@68F)	2796.71	4792.23	2810.61	4791.46
CVS Flow Rate Avg (scfm)	329.45	327.18	329.27	329.01
Fan Placement: One Fan - Down - Front				
Phase Time (secs)	506.90	869.60	509.70	869.59
Distance (miles)	3.585	3.841	3.588	3.843
Bag Analysis Time (secs)	954.0	148.8	961.3	

MFR Test Results

for Procedure 21 Federal fuel 2-day exhaust (w/can load)

MFR Number	HC	CO	NOx	CO2	NMOG	NonMeth HC
1E+07	0.0232	0.471	0.0183	326	0	0.0211

Odometer
3993 M

MPG
27.2

MPG is 8.54 % higher than EPA MPG

MFR Lab: Volkswagen AG, Dept EASZ/1

Dyno: 21

Fuel: 61 Tier 2 Cert Gasoline

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 12/3/2010 7:36:50 PM
Subject: I got an updated schedule...

Hi, Sebastian.

We are done with the N148 vehicles. If we do decide to bring more in it won't be until February.

The next confirmatory vehicle is not scheduled to come in until the week of January 10.

I will send an e-mail to you the week before we plan to bring the vehicle in and let you know the VIN and maintenance date.

Enjoy your trip!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 12/3/2010 9:02:04 PM
Subject: RE: I got an updated schedule...

Hello Lynn,

Thank you very much for that update.
It helps to plan.

Have a nice weekend.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Friday, December 03, 2010 2:37 PM
To: Berenz, Sebastian
Subject: I got an updated schedule...

Hi, Sebastian.

We are done with the N148 vehicles. If we do decide to bring more in it won't be until February.

The next confirmatory vehicle is not scheduled to come in until the week

of January 10.

I will send an e-mail to you the week before we plan to bring the vehicle in and let you know the VIN and maintenance date.

Enjoy your trip!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Mon 12/6/2010 4:08:04 PM
Subject: Test data for in-use vehicle N149-0059
[N149RXX-0059.pdf](#)

Hi, Sebastian.

The data for the above vehicle is attached. Please give me a call if you have any questions.

Lynn Sohacki
Environmental Protection Agency
(734)214-4851
(734)214-4869 fax

C15D

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0045-002

Vehicle ID: N149RXX-0059

Test Information



Test Date: 12/2/2010
Key Start / Hot Soak: 09:56:52 / 09:46
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980005
Beginning Odometer: 051113.0 MI
Drive Schedule: ftp3bag
Soak Period: 21.1 hours

Bag Data

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Phase 1						
Sample	14.404	41.970	1.692	0.871	3.233	
Ambient	3.473	0.000	0.006	0.049	2.066	
Net Concentration	11.158	41.970	1.686	0.825	1.303	9.725

Remarks:

Phase 2

Sample	3.507	5.777	0.214	0.549	2.011	
Ambient	3.351	0.004	0.010	0.048	2.032	
Net Concentration	0.294	5.772	0.204	0.503	0.063	0.225

Remarks:

Phase 3

Sample	3.602	8.700	0.235	0.747	2.234	
Ambient	3.252	0.044	0.013	0.048	2.030	
Net Concentration	0.532	8.658	0.223	0.701	0.318	0.182

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.164	1.247	0.073	385.3	0.022	0.143	22.926
Phase 2	0.007	0.274	0.014	375.4	0.002	0.005	23.658
Phase 3	0.008	0.257	0.010	327.0	0.005	0.003	27.152
Weighted	0.03981	0.47146	0.02518	364.148	0.00697	0.03318	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #:
Phase 1	22.90		D002
Phase 2	23.64		Inertia: 3875
Phase 3	27.12		EPA Set Co A: 9.18
			EPA Set Co B: 0.27
			EPA Set Co C: 0.01586
Weighted	24.34		Emiss-Bench: D002

v101007 - d002 EPAVDAEm101202093747

Page 1 of 2

Print Time 02-Dec-2010 10:45

NVFEL Laboratory Test Data
Final Laboratory Test Results

CVS

Test Number: 2011-0045-002

Vehicle ID: N149RXX-0059

Results	HC-FID	CO	NOx	CO2	CH4	NMHC	Meth Response
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	1.1
Phase 1	0.593	4.501	0.264	1390.5	0.080	0.517	
Phase 2	0.027	1.061	0.055	1452.5	0.007	0.020	
Phase 3	0.028	0.926	0.035	1178.0	0.019	0.010	



Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.13	29.13	29.13	
Avg Cell Temp (degF)	75.06	75.10	75.15	
Dew Point (degF)	46.65	46.88	46.59	
Specific Humidity (grains/lbm)	48.45	48.87	48.33	
NOx Corr Factor	0.8891	0.8906	0.8886	
CO2 Dilution Factor	15.292	24.367	17.913	
CFV Vmix (scf @68F)	3253.10	5576.86	3242.68	
CVS Flow Rate Avg (scfm)	385.13	384.08	384.05	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	506.80	871.20	506.60	
Distance (miles)	3.608	3.870	3.602	
Bag Analysis Time (secs)	75.0	75.6	74.1	

CISD

NVFEL Laboratory Test Data Final Laboratory Test Results

CVS

Test Number: 2011-0045-003

Vehicle ID: N149RXX-0059

Test Information

Test Date: 12/2/2010

Key Start: 11:11:29

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 03 HWFET (hwfetprep_hwfet)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 051124.0 MI

Drive Schedule: hwfet_hwfet

Bag Data**Phase 1**

Sample
Ambient
Net Concentration

HC-FID

(ppmC)

3.634

3.212

0.662

CO

(ppm)

14.240

0.003

14.237

NOx

(ppm)

0.351

0.019

0.333

CO2

(%)

1.000

0.048

0.955

CH4

(ppm)

2.084

2.038

0.199

NonMeth HC

(ppmC)

0.444

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

Phase 1

HC-FID

(gpm)

0.005

CO

(gpm)

0.221

NOx

(gpm)

0.008

CO2

(gpm)

233.4

CH4

(gpm)

0.002

NMHC

(gpm)

0.003

Vol MPG

(mpg)

38.040

Fuel Economy

Phase 1

Gasoline MPG

38.00

Dyno Settings

Dyno #: D002

Inertia: 3875

EPA Set Co A: 9.18

EPA Set Co B: 0.27

EPA Set Co C: 0.01586

Emiss-Bench: D002

v101007 - d002

EPAVDAEm101202104744

Page 1 of 2

C:\Users\paw\Documents\2011\20110045-003\20110045-003.rpt

Print Time 02-Dec-2010 11:31

**NVFEL Laboratory Test Data
Final Laboratory Test Results**

CVS

Test Number: 2011-0045-003

Vehicle ID: N149RXX-0059

Results



	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.052	2.270	0.078	2394.1	0.018	0.035	1.1

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.10			
Avg Cell Temp (degF)	75.11			
Dew Point (degF)	46.61			
Specific Humidity (grains/lbm)	48.42			
NOx Corr Factor	0.8889			
CO2 Dilution Factor	13.376			
CFV Vmix (scf @68F)	4837.02			
 CVS Flow Rate Avg (scfm)	 379.37			
 Fan Placement: One Fan - Up - Front				
Phase Time (secs)	765.00			
Distance (miles)	10.259			
Bag Analysis Time (secs)	74.0			

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: CN=Vincent Mazaitis/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 12/6/2010 4:28:01 PM
Subject: VW hybrid FTP

Bob, I received your voice mail regarding VW accepting the ftp FE numbers. I canceled the re-test. But I haven't seen an official email from you, have you sent it?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Mon 12/6/2010 4:34:08 PM
Subject: Touareg Hybrid Confirmatory Test Results Accepted

Hello Jim,

Volkswagen accepts the results of the confirmatory test for the VW Touareg Hybrid (ID: VW526 710023 – cfg. 0).

Please cancel the retest and release the vehicle for pick-up tomorrow (Tuesday 7-Dec-10).

The first attempt to send this went to the wrong address.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Leonard.Kata@vw.com[]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Mon 12/6/2010 8:41:45 PM
Subject: ADP

Len, I talked to Arvon about ADP and VW uses the SRC process which doesn't require approval. So all I need is a letter saying you are using EPA's SRC and we are all set on this.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: richard.thomas@vw.com[]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 12/9/2010 4:01:47 PM
Subject: Fees URL

Hi, Richard.

Here it is:

<http://www.epa.gov/otaq/guidance.htm>

Please let me know if you have any trouble locating the forms.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Fri 12/10/2010 12:56:53 PM
Subject: Confernece Call - Audi

Hello Jim:

I am asking about scheduling a conference call with you and EPA staff to Discuss start-stop devices with Audi. Ex. 7 from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Tue 12/14/2010 9:27:28 AM
Subject: Confirmatory Program 3.1I Audi
sebastian.berenz@vw.com

Hello Lynn,

I hope everything is fine in Michigan. I'm still in Germany and heard of the blizzard.

Can you please give me an update on EPA's decision on our 3.1I confirmatory program?

It would be kind, if you can send me the last two test results of the Audi A6es.

Thank you very much.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance

Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 12/14/2010 6:27:03 PM
Subject: FW: Confernece Call - Audi

Hi Jim:

I received your message that the proposed time for tomorrow is not good. Unfortunately, Lothar is not in the office on Thursday or Friday, so my suggestion is to postpone until early next week. Would you propose a time, preferably no later than 11:00 a.m. on Monday (12/20) or Tuesday (12/21) that would work for you?

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices.

Thanks,

Len

From: Kata, Leonard
Sent: Friday, December 10, 2010 7:57 AM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Confernece Call - Audi

Hello Jim:

I am asking about scheduling a conference call with you and EPA staff to Discuss start-stop devices with Audi. Lothar Rech from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 12/14/2010 6:35:04 PM
Subject: Re: FW: Confernece Call - Audi

Next Tuesday is mtg from 9 to 10 again so I guess monday morning. How about 10:00?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/14/2010 01:27 PM
Subject: FW: Confernece Call - Audi

Hi Jim:

I received your message that the proposed time for tomorrow is not good. Unfortunately, Lothar is not in the office on Thursday or Friday, so my suggestion is to postpone until early next week. Would you propose a time, preferably no later than 11:00 a.m. on Monday (12/20) or Tuesday (12/21) that would work for you?

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Len

From: Kata, Leonard
Sent: Friday, December 10, 2010 7:57 AM
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Subject: Confernece Call - Audi

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Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 12/14/2010 6:44:54 PM
Subject: RE: FW: Confernece Call - Audi

Hi Jim:

Tuesday at 10:00 sounds good to me. Lets pencil that in. I will let Ex. 7 know and see what he says.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, December 14, 2010 1:35 PM
To: Ex. 7
Subject: Re: FW: Confernece Call - Audi

Next Tuesday is mtg from 9 to 10 again so I guess monday morning. How about 10:00?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:

Ex. 7

To:

Jim Snyder/AA/USEPA/US@EPA

Date:

12/14/2010 01:27 PM

Subject:

FW: Confernece Call - Audi

Hi Jim:

I received your message that the proposed time for tomorrow is not good. Unfortunately, **Ex. 7** is not in the office on Thursday or Friday, so my suggestion is to postpone until early next week. Would you propose a time, preferably no later than 11:00 a.m. on Monday (12/20) or Tuesday (12/21) that would work for you?

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Thanks,

Ex. 7

From:

Ex. 7

Sent: Friday, December 10, 2010 7:57 AM

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Subject: Confernece Call - Audi

Hello Jim:

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Ex. 7 from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Tue 12/14/2010 6:45:15 PM
Subject: Recall: FW: Confernece Call - Audi

Ex. 7 would like to recall the message, "FW: Confernece Call - Audi".

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Tue 12/14/2010 6:47:14 PM
Subject: RE: FW: Confernece Call - Audi

Hi Jim:

I just wrote back and tried to recall the message. I read your message too fast.

Next Monday at 10:00 sounds good. I will let Lothar know.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, December 14, 2010 1:35 PM
To: Kata, Leonard
Subject: Re: FW: Confernece Call - Audi

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Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/14/2010 01:27 PM
Subject: FW: Confernece Call - Audi

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Subject: Confernece Call - Audi

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Lothar Rech from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: []
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Tue 12/14/2010 7:05:44 PM
Subject: Re: Confirmatory Program 3.1I Audi
[N002RXX-0133C hwy.pdf](#)
[N001RXX-0136C ftp.pdf](#)
[N001RXX-0136C hwy.pdf](#)
[N002RXX-0133C ftp.pdf](#)
sebastian.berenz@vw.com

Hi, Sebastian.

We have decided to suspend testing for now on this class but we do have some questions that we will be sending to you. Unfortunately, it is very busy right now so I'm not sure when we will be getting the questions to you.

Here is the data you requested.

I hope it's warmer there than it is here!

Regards.

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 12/14/2010 04:28 AM
Subject: Confirmatory Program 3.1I Audi

Hello Lynn,

I hope everything is fine in Michigan. I'm still in Germany and heard of the blizzard.

Can you please give me an update on EPA's decision on our 3.1I confirmatory program?
It would be kind, if you can send me the last two test results of the Audi A6es.

Thank you very much.

Best regards.

Sebastian

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

0150

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0039-003

Vehicle ID: N002RXX-0133C

Test Information



Test Date: 12/2/2010
Key Start: 10:20:02
Fuel Container ID: F00023
Fuel Type: 61 Tier 2 Cert Test Fuel
Test Procedure: 03 HWFET (hwfetprep_hwfet)
Calculation Method: Gasoline
Pretest Remarks:

MFR Name: AUDI
MFR Codes: 640 ADX
Config #: 00
Transmission: AUTO
Shift Schedule: A09980011
Beginning Odometer: 053028.0 MI
Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.885	50.984	0.378	1.290	2.146	
Ambient	2.569	0.000	0.017	0.045	1.963	
Net Concentration	1.564	50.984	0.362	1.250	0.373	1.137

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.010	0.681	0.007	262.2	0.003	0.008	33.771

Fuel Economy

Gasoline MPG

Phase 1 33.74

Dyno Settings

Dyno #: D329 - AWD

Inertia: 4250

EPA Set Co A: 6.04

EPA Set Co B: 0.2166

EPA Set Co C: 0.01666

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0039-003

Vehicle ID: N002RXX-0133C

Results




	<u>HC-FID</u>	<u>CO</u>	<u>NOx</u>	<u>CO2</u>	<u>CH4</u>	<u>NMHC</u>	<u>Meth Response</u>
	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	
Phase 1	0.106	6.973	0.074	2686.2	0.029	0.077	1.143

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.14			
Avg Cell Temp (degF)	74.77			
Dew Point (degF)	48.80			
Specific Humidity (grains/lbm)	52.56			
NOx Corr Factor	0.9046			
CO2 Dilution Factor	10.341			
CFV Vmix (scf @68F)	4148.04			
CVS Flow Rate Avg (scfm)	325.34			
Fan Placement:	One Fan - Up - Front			
Phase Time (secs)	765.00			
Distance (miles)	10.246			
Bag Analysis Time (secs)	104.9			

C15D

NVFEL Laboratory Test Data							CVS
Final Laboratory Test Results							
Test Information		Test Number: 2011-0040-002		Vehicle ID: N001RXX-0136C			
	Test Date: 12/3/2010		MFR Name: AUDI		MFR Codes: 640 ADX		
	Key Start / Hot Soak: 08:15:01 / 09:48		Config #: 00		Transmission: AUTO		
	Fuel Container ID: F00023		Shift Schedule: A09980005		Beginning Odometer: 019286.0 MI		
	Fuel Type: 61 Tier 2 Cert Test Fuel		Drive Schedule: ftp3bag		Soak Period: 18.6 hours		
	Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp						
	Calculation Method: Gasoline						
Pretest Remarks:							
Bag Data							
Phase 1	<u>HC-FID</u> (ppmC)	<u>CO</u> (ppm)	<u>NOx</u> (ppm)	<u>CO2</u> (%)	<u>CH4</u> (ppm)	<u>NonMeth HC</u> (ppmC)	
Sample	17.492	55.441	2.501	1.132	3.448		
Ambient	2.616	0.000	0.019	0.042	1.929		
Net Concentration	15.098	55.441	2.484	1.094	1.683	13.174	
Remarks:							
Phase 2	<u>HC-FID</u> (ppmC)	<u>CO</u> (ppm)	<u>NOx</u> (ppm)	<u>CO2</u> (%)	<u>CH4</u> (ppm)	<u>NonMeth HC</u> (ppmC)	
Sample	2.473	9.935	0.029	0.724	1.840		
Ambient	2.557	0.000	0.018	0.042	1.914		
Net Concentration	0.054	9.935	0.013	0.684	0.030	0.020	
Remarks:							
Phase 3	<u>HC-FID</u> (ppmC)	<u>CO</u> (ppm)	<u>NOx</u> (ppm)	<u>CO2</u> (%)	<u>CH4</u> (ppm)	<u>NonMeth HC</u> (ppmC)	
Sample	2.966	13.900	0.183	0.953	2.017		
Ambient	2.534	0.000	0.013	0.042	1.908		
Net Concentration	0.613	13.900	0.171	0.914	0.245	0.334	
Remarks:							
Phase 4	<u>HC-FID</u> (ppmC)	<u>CO</u> (ppm)	<u>NOx</u> (ppm)	<u>CO2</u> (%)	<u>CH4</u> (ppm)	<u>NonMeth HC</u> (ppmC)	
Sample							
Ambient							
Net Concentration							
Remarks:							
Results	<u>HC-FID</u> (gpm)	<u>CO</u> (gpm)	<u>NOx</u> (gpm)	<u>CO2</u> (gpm)	<u>CH4</u> (gpm)	<u>NMHC</u> (gpm)	<u>Vol MPG</u> (mpg)
Phase 1	0.191	1.413	0.094	438.3	0.025	0.166	20.154
Phase 2	0.001	0.403	0.001	436.0	0.001	0.000	20.364
Phase 3	0.008	0.354	0.006	366.3	0.004	0.004	24.234
Weighted	0.04220	0.59895	0.02172	417.310	0.00643	0.03585	
Fuel Economy	<u>Gasoline MPG</u>	<u>Dyno Settings</u>					<u>Dyno #</u> : D329 - AWD
Phase 1	20.13						Inertia: 4250
Phase 2	20.34						EPA Set Co A: 3.54
Phase 3	24.21						EPA Set Co B: 0.228
							EPA Set Co C: 0.01696
Weighted	21.25						Emiss-Bench: Mexa 7200sle
v101007 - d329 EPAVDAEm101203080211 Page 1 of 2 Print Time 03-Dec-2010 09:10							

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0040-002

Vehicle ID: N001RXX-0136C

Results



	<u>HC-FID</u> (grams)	<u>CO</u> (grams)	<u>NOx</u> (grams)	<u>CO2</u> (grams)	<u>CH4</u> (grams)	<u>NMHC</u> (grams)	<u>Meth Response</u>
Phase 1	0.683	5.066	0.338	1571.4	0.088	0.596	1.143
Phase 2	0.004	1.551	0.003	1679.2	0.003	0.002	
Phase 3	0.028	1.272	0.023	1314.8	0.013	0.015	

Test Conditions

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Phase 3</u>	<u>Phase 4</u>
Barometer (inHg)	29.19	29.19	29.20	
Avg Cell Temp (degF)	75.65	74.86	74.81	
Dew Point (degF)	49.09	49.13	49.02	
Specific Humidity (grains/lbm)	53.05	53.12	52.90	
NOx Corr Factor	0.9065	0.9068	0.9059	
CO2 Dilution Factor	11.758	18.478	14.032	
CFV Vmix (scf @68F)	2771.37	4736.37	2776.39	
CVS Flow Rate Avg (scfm)	327.91	326.72	329.02	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.10	869.80	506.30	
Distance (miles)	3.585	3.852	3.589	
Bag Analysis Time (secs)	879.3	1109.4	120.6	

CISD

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0040-003

Vehicle ID: N001RXX-0136C

Test Information



Test Date: 12/3/2010

Key Start: 09:44:53

Fuel Container ID: F00023

Fuel Type: 61 Tier 2 Cert Test Fuel

Test Procedure: 03 HWFET (hwfelprep_hwfet)

Calculation Method: Gasoline

Pretest Remarks:

MFR Name: AUDI

MFR Codes: 640

ADX

Config #: 00

Transmission: AUTO

Shift Schedule: A09980011

Beginning Odometer: 019297.0 MI

Drive Schedule: hwfet_hwfet

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	3.368	38.843	0.636	1.277	1.987	
Ambient	2.480	0.000	0.006	0.041	1.899	
Net Concentration	1.125	38.843	0.630	1.240	0.270	0.816

Remarks:

Phase 2

Sample
Ambient
Net Concentration

Remarks:

Phase 3

Sample
Ambient
Net Concentration

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.007	0.520	0.013	260.5	0.002	0.005	34.015

Fuel Economy

Gasoline MPG

Phase 1 33.98

Dyno Settings

Dyno #: D329 - AWD

Inertia: 4250

EPA Set Co A: 3.54

EPA Set Co B: 0.228

EPA Set Co C: 0.01696

Emiss-Bench: Mexa 7200sle

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0040-003

Vehicle ID: N001RXX-0136C

Results



Phase 1

HC-FID

(grams)

0.076

CO

(grams)

5.323

NOx

(grams)

0.128

CO2

(grams)

2669.4

CH4

(grams)

0.021

NMHC

(grams)

0.055

Meth Response

1.143

Test Conditions

Phase 1

Phase 2

Phase 3

Phase 4

Barometer (inHg)

29.21

Avg Cell Temp (degF)

75.04

Dew Point (degF)

48.67

Specific Humidity (grains/lbm)

52.19

NOx Corr Factor

0.9032

CO2 Dilution Factor

10.459

CFV Vmix (scf @68F)

4156.16

CVS Flow Rate Avg (scfm)

325.93

Fan Placement: One Fan - Up - Front

Phase Time (secs)

765.10

Distance (miles)

10.245

Bag Analysis Time (secs)

104.8

C15D

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0039-002

Vehicle ID: N002RXX-0133C

Test Information



Test Date: 12/2/2010

MFR Name: AUDI

Key Start / Hot Soak: 09:02:34 / 09:45

MFR Codes: 640

ADX

Fuel Container ID: F00023

Config #: 00

Fuel Type: 61 Tier 2 Cert Test Fuel

Transmission: AUTO

Test Procedure: 21 Fed Fuel 2-day Exhaust (CAN LOAD)(ftp

Shift Schedule: A09980005

Calculation Method: Gasoline

Beginning Odometer: 053017.0 MI

Pretest Remarks:

Drive Schedule: ftp3bag

Soak Period: 25.3 hours

Bag Data

Phase 1

	HC-FID (ppmC)	CO (ppm)	NOx (ppm)	CO2 (%)	CH4 (ppm)	NonMeth HC (ppmC)
Sample	24.593	80.808	2.330	1.119	4.137	
Ambient	2.649	0.000	0.022	0.044	1.974	
Net Concentration	22.168	80.808	2.310	1.079	2.329	19.505

Remarks:

Phase 2

Sample	2.746	11.295	0.022	0.712	1.919	
Ambient	2.596	0.000	0.019	0.044	1.966	
Net Concentration	0.288	11.295	0.003	0.670	0.058	0.222

Remarks:

Phase 3

Sample	5.650	26.425	0.330	0.919	2.277	
Ambient	2.532	0.000	0.021	0.044	1.972	
Net Concentration	3.292	26.425	0.310	0.878	0.441	2.788

Remarks:

Phase 4

Sample
Ambient
Net Concentration

Remarks:

Results

	HC-FID (gpm)	CO (gpm)	NOx (gpm)	CO2 (gpm)	CH4 (gpm)	NMHC (gpm)	Vol MPG (mpg)
Phase 1	0.279	2.054	0.087	431.0	0.034	0.246	20.435
Phase 2	0.006	0.459	0.000	427.5	0.001	0.004	20.761
Phase 3	0.042	0.673	0.012	351.4	0.006	0.035	25.217
Weighted	0.07242	0.84914	0.02150	407.259	0.00952	0.06302	

Fuel Economy

	Gasoline MPG	Dyno Settings	Dyno #: D329 - AWD
Phase 1	20.41		Inertia: 4250
Phase 2	20.74		EPA Set Co A: 6.04
Phase 3	25.19		EPA Set Co B: 0.2166
			EPA Set Co C: 0.01666
Weighted	21.74		Emiss-Bench: Mexa 7200sle

v101007 - d329

EPAVDAEm101202084123

Page 1 of 2

Print Time 02-Dec-2010 09:58

NVFEL Laboratory Test Data

CVS

Final Laboratory Test Results

Test Number: 2011-0039-002

Vehicle ID: N002RXX-0133C

Results



	HC-FID (grams)	CO (grams)	NOx (grams)	CO2 (grams)	CH4 (grams)	NMHC (grams)	Meth Response
Phase 1	1.000	7.358	0.313	1543.6	0.122	0.880	1.143
Phase 2	0.022	1.758	0.001	1638.9	0.005	0.017	
Phase 3	0.149	2.417	0.042	1261.9	0.023	0.126	

Test Conditions

	Phase 1	Phase 2	Phase 3	Phase 4
Barometer (inHg)	29.12	29.12	29.13	
Avg Cell Temp (degF)	74.86	74.87	74.84	
Dew Point (degF)	49.05	49.11	48.91	
Specific Humidity (grains/lbm)	53.09	53.22	52.79	
NOx Corr Factor	0.9066	0.9071	0.9055	
CO2 Dilution Factor	11.858	18.782	14.528	
CFV Vmix (scf @68F)	2761.70	4719.78	2774.55	
CVS Flow Rate Avg (scfm)	326.57	325.73	328.16	
Fan Placement: One Fan - Up - Front				
Phase Time (secs)	507.40	869.39	507.30	
Distance (miles)	3.582	3.833	3.591	
Bag Analysis Time (secs)	878.9	1108.1	120.6	

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Tue 12/14/2010 7:40:35 PM
Subject: Certificate for MY 2012 Test Group CVWXV02.5259

Hello Jim,

I received a message on Friday that the certificate for MY 2012 Test Group CVWXV02.5259 was waiting to be signed.

Is there any reason it hasn't been signed yet?

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 12/14/2010 9:59:26 PM
Subject: Re: Certificate for MY 2012 Test Group CVWXV02.5259

They are in the signing queue. I assume the other test group certs were signed since they are gone. Not sure why Linc didn't do those but I know some times its very slow to get through it.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/14/2010 02:40 PM
Subject: Certificate for MY 2012 Test Group CVWXV02.5259

Hello Jim,

I received a message on Friday that the certificate for MY 2012 Test Group CVWXV02.5259 was waiting to be signed.

Is there any reason it hasn't been signed yet?

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: []

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Tue 12/14/2010 10:48:45 PM

Subject: Audi phone conference: Start/stop and manual trans

EPA room phone is **Non-Responsive**

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices

To: CN=Chris Nevers/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; Leonard.Kata@vw.com;CN=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Linc Wehrly/OU=AA/O=USEPA/C=US@EPA;CN=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Martin Reineman/OU=AA/O=USEPA/C=US@EPA;CN=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Stephen Healy/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]

Cc: []

From: CN=Jim Snyder/OU=AA/O=USEPA/C=US

Sent: Tue 12/14/2010 10:48:45 PM

Subject: Audi phone conference: Start/stop and manual trans

EPA room phone is 7-34-214-4152

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Tue 12/14/2010 10:50:41 PM
Subject: RE: FW: Conference Call - Audi

Len, I scheduled a room. Can you and Lothar connect and both call in to our phone? Or do we need a conference number?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/14/2010 01:47 PM
Subject: RE: FW: Confernece Call - Audi

Hi Jim:

I just wrote back and tried to recall the message. I read your message too fast.

Next Monday at 10:00 sounds good. I will let Lothar know.

Best regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, December 14, 2010 1:35 PM
To: Kata, Leonard
Subject: Re: FW: Confernece Call - Audi

Next Tuesday is mtg from 9 to 10 again so I guess monday morning. How about 10:00?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/14/2010 01:27 PM
Subject: FW: Confernece Call - Audi

Hi Jim:

I received your message that the proposed time for tomorrow is not good. Unfortunately, Lothar is not in the office on Thursday or Friday, so my suggestion is to postpone until early next week. Would you propose a time, preferably no later than 11:00 a.m. on Monday (12/20) or Tuesday (12/21) that would work for you?

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices.

Thanks,

Len

From: Kata, Leonard
Sent: Friday, December 10, 2010 7:57 AM
To: 'Snyder.Jim@epamail.epa.gov'
Subject: Confernece Call - Audi

Hello Jim:

I am asking about scheduling a conference call with you and EPA staff to Discuss start-stop devices with Audi. Lothar Rech from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Wed 12/15/2010 1:23:16 PM
Subject: RE: FW: Conference Call - Audi
<mailto:Snyder.Jim@epamail.epa.gov>

Hello Jim:

I can added a few people to my desk telephone using the conference feature, but I think that a conference call would be easier. I can easily set this up so you could call in to a local Non-Responsive number. I will send the coordinates to you and other cans join as needed.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [<mailto:Snyder.Jim@epamail.epa.gov>]
Sent: Tuesday, December 14, 2010 5:51 PM
To: Ex. 7
Subject: RE: FW: Conference Call - Audi

[Ex. 7] scheduled a room. Can you and [Ex. 7] connect and both call in to our phone? Or do we need a conference number?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:

Ex. 7

To:

Jim Snyder/AA/USEPA/US@EPA

Date:

12/14/2010 01:47 PM

Subject:

RE: FW: Confernece Call - Audi

Hi Jim:

I just wrote back and tried to recall the message. I read your message too fast.

Next Monday at 10:00 sounds good. I will let [Ex. 7] know.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Tuesday, December 14, 2010 1:35 PM

To: **Ex. 7**
Subject: Re: FW: Confernece Call - Audi

Next Tuesday is mtg from 9 to 10 again so I guess monday morning. How about 10:00?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: **Ex. 7**

To: Jim Snyder/AA/USEPA/US@EPA

Date: 12/14/2010 01:27 PM

Subject: FW: Confernece Call - Audi

Hi Jim:

I received your message that the proposed time for tomorrow is not good. Unfortunately, **Ex. 7** is not in the office on Thursday or Friday, so my suggestion is to postpone until early next week. Would you propose a time, preferably no later than 11:00 a.m. on Monday (12/20) or Tuesday (12/21) that would work for you?

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices.

Thanks,

Ex. 7

From: **Ex. 7**
Sent: Friday, December 10, 2010 7:57 AM
To: 'Snyder.Jim@epamail.epa.gov'

Subject: Confernece Call - Audi

Hello Jim:

I am asking about scheduling a conference call with you and EPA staff to Discuss start-stop devices with Audi.

Ex. 7 from Audi would join.

Wednesday, December 15, 2010 10:30 a.m. Detroit time. 30-45 minutes.

Please let me know what you think.

Regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Wed 12/15/2010 4:02:51 PM
Subject: Accepted: Audi phone conference: Start/stop and manual trans

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc: "Rech, Lothar (I/EA-523)" [Lothar.Rech@AUDI.DE]
From: "Kata, Leonard"
Sent: Wed 12/15/2010 4:07:17 PM
Subject: EPA/AUDI Conference Call

Hi Jim:

The e-gremlins must be active today. I sent an outlook invitation to you with a call-in number for our conference call on Monday (12/20) at 10:00. I keep getting an "undeliverable" message back, but the e-mail is in my sent items folder.

So... just in case, the following is the information for the call-in. Please use the Dial-In and the Participant Code below.

Audio Conference Information:

Non-Responsive

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 12/15/2010 4:17:30 PM
Subject: VW Group: MY 2012 Test Waiver Requests

Hello Jim,

I just submitted two more MY 2012 test waiver requests. I expect to submit two more by the end of the day if possible.

The first four were for two FEDV's (automatic and manual transmission versions) for test group CVWXXV02.5U35 – federal only BIN 5 new midsize sedan (NMS).

This is a new model to be produced at VW's new factory in Tennessee.

The two from today and the two yet to be submitted are a PZEV version of the same vehicle.

These are all fuel economy tests for the first two test group applications that I have already submitted for certification.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

Phone: (248) 754-4224

Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: "Kata, Leonard" [Leonard.Kata@vw.com]
Cc: "Rech, Lothar (I/EA-523)" [Lothar.Rech@AUDI.DE]
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 12/15/2010 6:13:25 PM
Subject: Re: EPA/AUDI Conference Call

I didn't get the earlier one but I received this, thanks.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Kata, Leonard" <Leonard.Kata@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Cc: "Rech, Lothar (I/EA-523)" <Lothar.Rech@AUDI.DE>
Date: 12/15/2010 11:26 AM
Subject: EPA/AUDI Conference Call

Hi Jim:

The e-gremlins must be active today. I sent an outlook invitation to you with a call-in number for our conference call on Monday (12/20) at 10:00. I keep getting an "undeliverable" message back, but the e-mail is in my sent items folder.

So... just in case, the following is the information for the call-in. Please use the Dial-In and the Participant Code below.

Audio Conference Information:

Ex. 6

Best regards,

Len

Leonard W. Kata
Manager, Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phone: (248) 754-4204
Cell: (248) 797-3886
E-Mail: leonard.kata@vw.com

To: "Hart, Robert (VWoA)" [Robert.Hart@vw.com]
Cc: []
Bcc: []
From: CN=Jim Snyder/OU=AA/O=USEPA/C=US
Sent: Wed 12/15/2010 6:14:31 PM
Subject: Re: VW Group: MY 2012 Test Waiver Requests

I now see six total. Is that all of them?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: "Hart, Robert (VWoA)" <Robert.Hart@vw.com>
To: Jim Snyder/AA/USEPA/US@EPA
Date: 12/15/2010 11:28 AM
Subject: VW Group: MY 2012 Test Waiver Requests

Hello Jim,

I just submitted two more MY 2012 test waiver requests. I expect to submit two more by the end of the day if possible.

The first four were for two FEDV's (automatic and manual transmission versions) for test group CVWXV02.5U35 – federal only BIN 5 new midsize sedan (NMS).
This is a new model to be produced at VW's new factory in Tennessee.

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These are all fuel economy tests for the first two test group applications that I have already submitted for certification.

Best regards,

Bob Hart

Robert Hart

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207

E-mail: robert.hart@vw.com

To: Jim Snyder/AA/USEPA/US@EPA[]
From: "Hart, Robert (VWoA)"
Sent: Wed 12/15/2010 6:18:18 PM
Subject: RE: VW Group: MY 2012 Test Waiver Requests

Hi Jim,

There are two more coming shortly.

Bob

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]
Sent: Wednesday, December 15, 2010 1:15 PM
To: Hart, Robert (VWoA)
Subject: Re: VW Group: MY 2012 Test Waiver Requests

I now see six total. Is that all of them?

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From:
"Hart, Robert (VWoA)" <Robert.Hart@vw.com>

To:
Jim Snyder/AA/USEPA/US@EPA

Date:
12/15/2010 11:28 AM

Subject:
VW Group: MY 2012 Test Waiver Requests

Hello Jim,

I just submitted two more MY 2012 test waiver requests. I expect to submit two more by the end of the day if possible.

The first four were for two FEDV's (automatic and manual transmission versions) for test group CVWXV02.5U35 – federal only BIN 5 new midsize sedan (NMS).

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3800 Hamlin Road
Auburn Hills, MI 48326

Phone: (248) 754-4224
Fax: (248) 754-4207
E-mail: robert.hart@vw.com

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Thur 12/16/2010 2:25:14 PM
Subject: Some questions on the N001/N002 class

Hi, Sebastian.

I mentioned in my last e-mail that we were suspending confirmatory testing at this time and wanted to focus on how the change in fueling affected the emissions. Given that 4 out of 5 of the surveillance Audi A6 in-use vehicles failed emissions before revising the fuel drain procedure and none of the confirmatory vehicles failed after using the revised drain procedure that avoids altering the fuel factor, we would like to better understand how it works.

We would like an explanation of this fuel feature. When is it active? What triggers it? What does the feature affect or adjust? What are the inputs and outputs? What do you call this feature? The answers to these questions will help us assess the results of the surveillance and confirmatory tests.

Please try to get the answers to us by the first week in January. However, if that is not possible, please let me know when you expect to get the answers to us.

Thanks you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Lynn Sohacki/AA/USEPA/US@EPA[]
From: "Berenz, Sebastian"
Sent: Fri 12/17/2010 8:36:09 AM
Subject: RE: Some questions on the N001/N002 class

Hello Lynn,

Thank you for keeping me updated.

I have received you questions concerning our 3.1l confirmatory programs.
We are now working to get the answers to you.

The problem is, that our factory is shut down till January, 10th and most of the people are already on vacation.

My colleges will start working on the questions as soon as everybody is back in the office.
So I hope it is sufficient for you, that you will get the answers during the first half of January.

I will be back in Michigan at January 3rd and try to get everything done as soon as possible.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Enviromental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
FAX: (248) 754-4207
E-Mail: sebastian.berenz@vw.com

<http://www.volkswagen.com>

P Before you print it, think about your responsibility and commitment to the ENVIRONMENT!

-----Original Message-----

From: Sohacki.Lynn@epamail.epa.gov [mailto:Sohacki.Lynn@epamail.epa.gov]
Sent: Thursday, December 16, 2010 9:25 AM
To: Berenz, Sebastian
Cc: Ball.Joel@epamail.epa.gov; Snyder.Jim@epamail.epa.gov; Anderson.Tom@epamail.epa.gov

Subject: Some questions on the N001/N002 class

Hi, Sebastian.

I mentioned in my last e-mail that we were suspending confirmatory testing at this time and wanted to focus on how the change in fueling affected the emissions. Given that 4 out of 5 of the surveillance Audi A6 in-use vehicles failed emissions before revising the fuel drain procedure and none of the confirmatory vehicles failed after using the revised drain procedure that avoids altering the fuel factor, we would like to better understand how it works.

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Thanks you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: "Berenz, Sebastian" [Sebastian.Berenz@vw.com]
Cc: CN=Jim Snyder/OU=AA/O=USEPA/C=US@EPA;CN=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Joel Ball/OU=AA/O=USEPA/C=US@EPA;CN=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Arvon Mitcham/OU=AA/O=USEPA/C=US@EPA;CN=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]; N=Tom Anderson/OU=AA/O=USEPA/C=US@EPA[]
Bcc: []
From: CN=Lynn Sohacki/OU=AA/O=USEPA/C=US
Sent: Fri 12/17/2010 2:02:30 PM
Subject: RE: Some questions on the N001/N002 class

Thanks, Sebastian.

I understand that there may be a delay because of vacations. That's fine. We'll look for the answers in January.

Enjoy the holidays!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

From: "Berenz, Sebastian" <Sebastian.Berenz@vw.com>
To: Lynn Sohacki/AA/USEPA/US@EPA
Date: 12/17/2010 03:36 AM
Subject: RE: Some questions on the N001/N002 class

Hello Lynn,

Thank you for keeping me updated.

I have received your questions concerning our 3.1I confirmatory programs. We are now working to get the answers to you.

The problem is, that our factory is shut down till January, 10th and most of the people are already on vacation.

My colleagues will start working on the questions as soon as everybody is back in the office. So I hope it is sufficient for you, that you will get the answers during the first half of January.

I will be back in Michigan at January 3rd and try to get everything done as soon as possible.

Thank you very much.

Best regards.

Sebastian Berenz

Manager In-Use Emission Compliance
Environmental Engineering Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326
United States of America

Phone: (248) 754-4211
Cell: (248) 736-3487
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E-Mail: sebastian.berenz@vw.com

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Sent: Thursday, December 16, 2010 9:25 AM
To: Berenz, Sebastian
Cc: Ball.Joel@epamail.epa.gov; Snyder.Jim@epamail.epa.gov; Anderson.Tom@epamail.epa.gov
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Thanks you!

Lynn Sohacki
Environmental Protection Agency
734-214-4851
734-214-4869 (fax)

To: Jim Snyder/AA/USEPA/US@EPA[]

Cc: Ex. 7

Ex. 7

From: Ex. 7

Sent: Fri 12/17/2010 3:51:32 PM

Subject: RE: ADP

Hello Jim:

I am not sure whether you are alerted to the letter I submitted to VERIFY. The vast majority of 2012 test groups are carryover from 2011. As mentioned in our certification preview, we use the VWADP that has been approved by EPA in the past and used for several years now. The SRC is primarily for Diesel test groups. The letter requests carryover of the previously approved procedure and nothifies EPA of the use of the SRC.

Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

From: Snyder.Jim@epamail.epa.gov [mailto:Snyder.Jim@epamail.epa.gov]

Sent: Monday, December 06, 2010 3:42 PM

To: **Ex. 7**
Subject: ADP

Ex. 7 I talked to **Ex. 7** about ADP and VW uses the SRC process which doesn't require approval. So all I need is a letter saying you are using EPA's SRC and we are all set on this.

Jim Snyder
Light-Duty Vehicle Group
Compliance and Innovative Strategies Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Jim Snyder/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; inc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; artin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; om Anderson/AA/USEPA/US@EPA[]
From: "Kata, Leonard"
Sent: Mon 12/20/2010 12:39:41 PM
Subject: RE: Invitation: Audi phone conference: Start/stop and manual trans (Dec 20 10:00 AM EST in AA-N62-ASD&CISD/AA-OTAQ-OFFICE@EPA)
01_STSTSY-survey and MT.PDF

Hello All:

Attached are a few slides for our conference call this morning.

Best regards,

Len

Leonard W. Kata

Manager, Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: (248) 754-4204

Cell: (248) 797-3886

E-Mail: leonard.kata@vw.com

<<01_STSTSY-survey and MT.PDF>>

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Tuesday, December 14, 2010 5:49 PM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; Kata, Leonard; Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Healy.Stephen@epamail.epa.gov; Anderson.Tom@epamail.epa.gov

Subject: Invitation: Audi phone conference: Start/stop and manual trans (Dec 20 10:00 AM EST in AA-N62-ASD&CISD/AA-OTAQ-OFFICE@EPA)
When: Monday, December 20, 2010 10:00 AM-11:00 AM (GMT-05:00) Eastern Time (US & Canada).
Where:

Invitation: Audi phone conference: Start/stop and manual trans

12/20/2010 -

Chair:
Jim Snyder/AA/USEPA/US

Sent By:
Snyder.Jim@epamail.epa.gov

Rooms:
AA-N62-ASD&CISD/AA-OTAQ-OFFICE@EPA

Snyder.Jim@epamail.epa.gov
Jim Snyder has invited you to a meeting. You have not yet responded.

Required:
Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Leonard.Kata@vw.com, Linc Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom Anderson/AA/USEPA/US@EPA

Description

EPA room phone is Ex. 6

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices << File: ATT1507133.htm >> << File: c174846.ics >> << File: ecblank.gif >> << File: pic07156.gif >>

To: Jim Snyder/AA/USEPA/US@EPA;Chris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; hris Nevers/AA/USEPA/US@EPA;Joel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; oel Ball/AA/USEPA/US@EPA;Linc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; inc Wehrly/AA/USEPA/US@EPA;Martin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; artin Reineman/AA/USEPA/US@EPA;Stephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; tephen Healy/AA/USEPA/US@EPA;Tom Anderson/AA/USEPA/US@EPA[]; om Anderson/AA/USEPA/US@EPA[]
From: Ex. 7
Sent: Mon 12/20/2010 12:39:41 PM
Subject: RE: Invitation: Audi phone conference: Start/stop and manual trans (Dec 20 10:00 AM EST in Non-Responsive
01_STSTSY-survey and MT.PDF

Hello All:

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Best regards,

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7

<<01_STSTSY-survey and MT.PDF>>

-----Original Appointment-----

From: Jim Snyder/AA/USEPA/US

Sent: Tuesday, December 14, 2010 5:49 PM

To: Jim Snyder/AA/USEPA/US; Nevers.Chris@epamail.epa.gov; Ball.Joel@epamail.epa.gov; Wehrly.Linc@epamail.epa.gov; Reineman.Martin@epamail.epa.gov; Healy.Stephen@epamail.epa.gov; Anderson.Tom@epamail.epa.gov; Non-Responsive

Subject: Invitation: Audi phone conference: Start/stop and manual trans (Dec 20 10:00 AM EST in: **Non-Responsive**)

Non-Responsive

When: Monday, December 20, 2010 10:00 AM-11:00 AM (GMT-05:00) Eastern Time (US & Canada).

Where:

Invitation: Audi phone conference: Start/stop and manual trans

12/20/2010 -

Chair:

Jim Snyder/AA/USEPA/US

Sent By:

Snyder.Jim@epamail.epa.gov

Rooms:

Non-Responsive

Snyder.Jim@epamail.epa.gov

Jim Snyder has invited you to a meeting. You have not yet responded.

Required:

Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, **Ex. 7** Linc
Wehrly/AA/USEPA/US@EPA, Martin Reineman/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA, Tom
Anderson/AA/USEPA/US@EPA

Description

EPA room phone is: **Non-Responsive**

I will try to get some materials to you prior to the call. To be more specific about the topics:

1. General discussion concerning start-stop devices.
2. Shift speeds for manual transmission vehicles with start-stop devices << File: ATT1507133.htm >> << File: c174846.ics >> << File: ecblank.gif >> << File: pic07156.gif >>

To: Jim Snyder/AA/USEPA/US@EPA[]
Cc:
From: **Ex. 7**
Sent: Tue 12/28/2010 5:30:01 PM
Subject: 2012 Pre-Model GHG Report

Hello Jim:

To ensure that we have met the December 31, 2010 deadline for a formal report submission, I have submitted the 2012 pre-model year GHG report through VERIFY, as we have discussed. This report uses our format and has been corrected to address the typographical errors noticed during the 12/01/2010 pre-certification meeting. The cover letter addresses the points raised in the regulations; such as, report contents, the use of credits (A/C, and early credits), and our plan regarding the incorporation of the N2O and CH4 values in an OCREE calculation.

Our intent is to further refine this report using the templates provided by Dave Good.

Best regards, and best wishes for the new year.

Ex. 7

Volkswagen Group of America, Inc.

Ex. 7